August 1958

SCHOOL MANAGEMENT

PRACTICAL SOLUTIONS TO SCHOOL MANAGEMENT PROBLEMS

HOW GOOD-OR BAD-IS YOUR PHYSICAL EDUCATION PROGRAM?

EXPLORATIONS IN PE

What's new in curriculum

EDUCATION

WHAT PARENTS THINK

SEE COMPLETE CONTENTS ON PAGE 3

NEW SICO SERIES "S" PORTABLE TABLES COST 20% LESS

yet have every famous Sico feature

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Exclusive Sico "Floating Fold" so easy a child can operate it. Seats 16 to 20.

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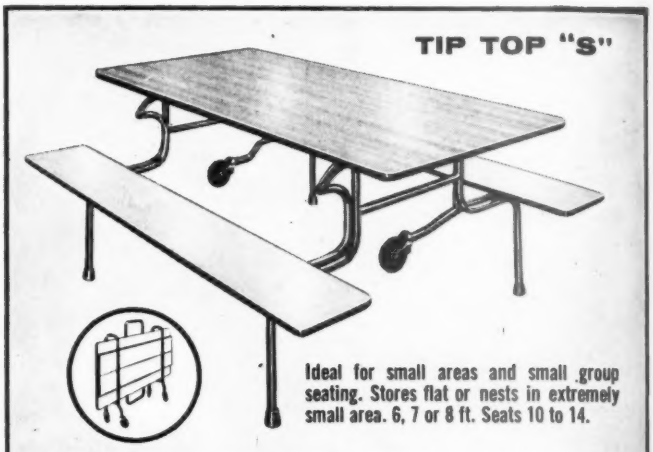
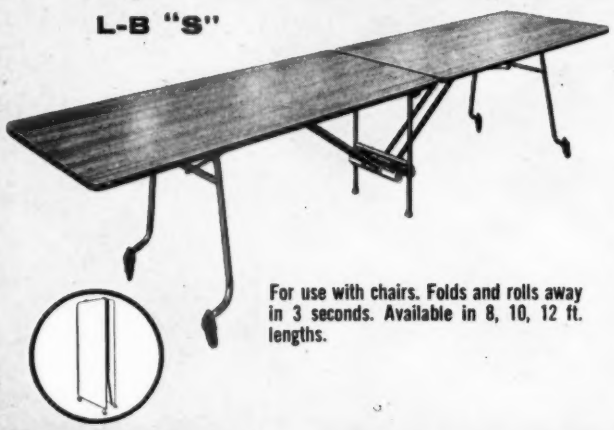


Ideal for small areas and small group seating. Stores flat or nests in extremely small area. 6, 7 or 8 ft. Seats 10 to 14.

L-B "S"



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Stationary unit, doubles your seating capacity. Benches fold for easy floor cleaning. 6, 7 or 8 ft. lengths. Seats 10 to 14.

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Sico Manufacturing Company, Inc. SICO **5215 Eden Avenue So., Dept. 504**

Minneapolis 24, Minn.

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takes the *Squint* out of Sunshine

Architect: Harstern, Louis and Henry, A.I.A., Louisville, Kentucky

Glazing: Central Glass Company, Louisville, Kentucky

Students at the new Mayme S. Waggener Jr. High School, Louisville, Kentucky, enjoy plenty of southern sunshine without fatiguing glare or undue solar heat. Mississippi Coolite, installed in the upper three rows of sash, floods classrooms with copious quantities of conditioned daylight, removes the unwanted elements of "raw" sunlight . . . diffuses comfortable, softly-tinted, eye-easy illumination throughout interiors. Students see better, feel better, work better under Coolite . . . the versatile glass that makes rooms seem larger, friendlier, helps achieve an atmosphere more conducive to concentration and study.

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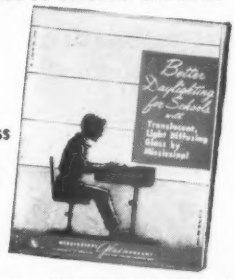

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Vol. 2 No. 8

S | M

Contents for August 1958

Features

Short Reports

Departments

What's happening in YOUR district?

Our best editorial material comes directly from people like you, people who are actually confronted with problems of school management and are finding ways to solve them.

If your district has found a good solution to a problem in school management, or if you have a problem and need help finding a solution, let us hear from you. We endeavor to return any unused manuscripts.

SCHOOL MANAGEMENT IS THE BEST PLATFORM FROM WHICH TO DISCUSS THE PROBLEMS OF YOUR SCHOOLS

SCHOOL MANAGEMENT

22 West Putnam Ave., Greenwich, Conn.

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LETTERS

RE ARCHITECT COLBERT

SIR: That was a most interesting interview with Architect Charles Colbert in your June issue. It was a particular delight to me in that, for once, I could find myself agreeing, on some points, with one of our most thoroughly provocative and delightful men interested in schools.

Colbert pointed to the need to spend money to save money. To spend money on thorough and basic inquiry into the nature of school buildings, their functions and structures, would be to push forward our areas of knowledge in a field where there is far too much rule-of-thumb. As an educational consultant working in this same general area, I believe that the importance of serious and objective study in depth of school plant problems cannot be over-stated.

Perhaps Colbert's and others' hopes for this basic research can be met in part by the operation of the new facilities division of the Fund for the Advancement of Education. Here is a direction where energy and money can be fruitfully expended.

STANTON LEGGETT
ENGELHARDT, ENGELHARDT,
LEGGETT & CORNELL
NEW YORK, N. Y.

■ *The new Fund activity mentioned here is Educational Facilities, Inc., which will be headed by Dr. Harold Gores, superintendent of the Newton, Mass., public schools.* ED.

SIR: "Chuck" Colbert's interview, published in your June issue of SCHOOL MANAGEMENT expresses substantially the view of all good architects in the country.

The good architect seeks to serve society with sure knowledge that through fine service his future is assured. He knows that "It is more blessed to give than to receive" is always translated to mean "He profits most who serves best."

CARL W. CLARK
F.A.I.A.
SYRACUSE, N .Y.

FILMS VS. EDUCATIONAL T-V

SIR: In your June, 1958 issue, a question was asked, "Does closed-circuit TV have a single advantage over film?" The answer is "yes" and here are a few of the reasons why.

In large school systems, the labor and cost of distribution of film and equipment is one of the serious disadvantages. In addition, there is the matter of getting film to all classrooms at the proper time. There is also the time-cost involved in locating good films and ordering them correctly.

Film also becomes obsolete quite rapidly, so up-dating—and local interpretation—must be made.

This does not mean that films and closed-circuit TV are incompatible. They complemented one another. Here are a few of the reasons why circulation of good films by TV makes films even more useful.

1. When films are distributed by TV, the classrooms do not have to be dark. Therefore, the students can take notes; they can be supervised, their reactions can be observed; the room can be ventilated by way of the windows and the contrast of the light and dark areas in the room are not extreme, and, therefore, are not hard on the eyes.

2. Film distributed by TV from a teaching center can be seen in all classes taking the same subject at the same time. This means that more films and slides can be used in the classroom because of the economy of distribution.

3. Only one copy of the film is required for a large number of classes taking the same instruction at the same time.

4. A few minutes of film can be used to illustrate a point, a method that is not economically possible in large numbers of classrooms by mechanical distribution.

In fairness, it should be said that while advantages can be shown in distribution of film by TV, only by distributing to a number of classes at one time, and by using such a system throughout the school day, can it be justified economically. At the present time, this means that the TV system would be used for direct instruction part of the time, since film in large quantities for instruction is not available.

L. L. LEWIS
EDUCATION ADMINISTRATOR
CHAIRMAN, TASK FORCE COMMITTEE
HAGERSTOWN, MD. TV PROJECT

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As advertised in the August issues of School Executive and School Management. Prepared by McHugh Advertising, Incorporated.

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THINGS YOUR PUBLIC OUGHT TO KNOW

Basic information that schoolmen can use as a part of a community education program

Those important junior high school years

■ ■ ■ EARLY THIS YEAR, the big Hughes Aircraft Co. made a random survey of its technical staff to find out which were the "critical years" in a man's education, which might lead him to a career in engineering.

The Hughes survey was no mere exercise in gathering interesting facts. The company is deadly serious about doing something to assure a steady supply of the trained people it needs. At right are the answers obtained from 185 people (median age: 31.6 years).

What Does It All Mean?

Anyone interested in American education can find much food for thought in the above figures. In this limited space, we want only to relate the answers to question one to a little story we picked up while interviewing the administration and staff of the West Hempstead, N. Y., High School about their advanced mathematics curriculum. Here is the story:

A few years ago, Tom, a seventh grader, was referred to the mathematics department chairman, because of his insistent reading of story books during mathematics class. Tom and his buddy were invited to the office for a visit. At this conference Tom was introduced to numbers written to bases other than 10. His interest was keen, and he became excited at the challenge of computing with these "new numbers."

We talked to Tom, now a senior. He told us, "I love mathematics now, but when I was in junior high school I hated it. Why? Because it was just long repetitions of things I had already done. We didn't get any algebra or geometry until the ninth grade. For two years, all we did was to review what we had the previous years. It was boring."

Tom, with a gift for mathematics, became *discouraged* during the very years the survey shows he needed *most* encouragement! Would he have been discouraged in your school too?

1. In what year of school were your interests directed toward the fields of Engineering and Science?

	RESPONDENTS: 185	%
Elementary School (Grades 1 thru 6)	41	22.2
Junior High School (Grades 7 thru 9)	77	41.6
High School (Grades 10 thru 12)		
2nd Year (10th Grade)	13	7
3rd Year (11th Grade)	15	8.2
4th Year (12th Grade)	12	6.5
High School (Year not listed)	14	7.6
Total High School	54	29.20
College	13	7

2. Who or what influenced you most to pursue a Science curriculum?

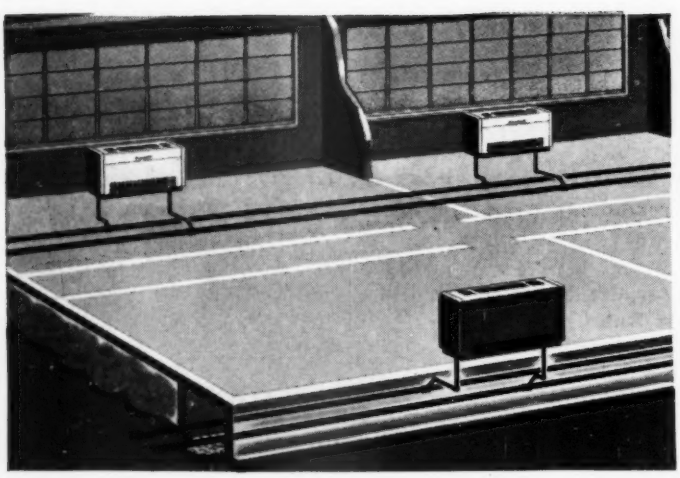
	RESPONDENTS: 185	%
Instructor	22	11.8
General Science Course	27	14.5
Friends	29	15.6
Books	51	27.5
Counselor	10	5
Military Service	20	10
Parent	37	20
Hobby	7	3.7
Magazines	1	.05
Newspaper report on Science	2	1
Liked Math	5	2.7
Science demonstration in High School (Voltage demonstration)	1	.5
Chemistry course	2	1

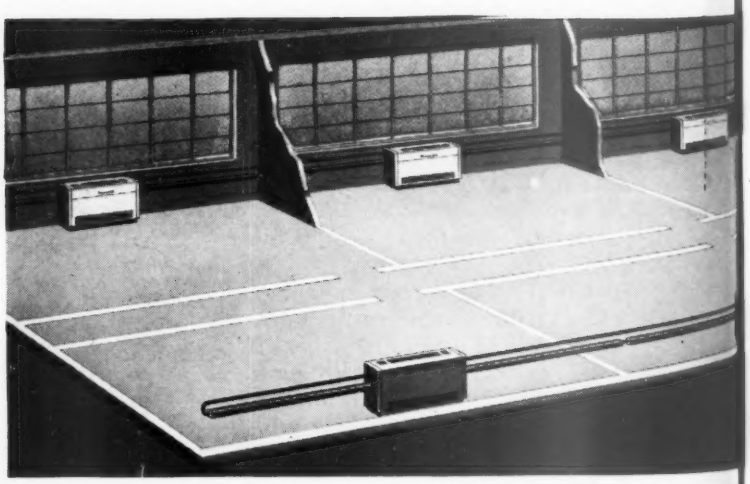
3. To what educational level do you think the company should direct an effort to influence students to pursue an Engineering curriculum?

	RESPONDENTS: 185	%
Elementary School (Grades 1 thru 6)	32	17.3
Junior High School (Grades 7 thru 9)	86	46.4
High School (Grades 10 thru 12)		
2nd Year (10 Grade)	9	4.9
3rd Year (11th Grade)	12	6.5
4th Year (12th Grade)	1	.5
High School (Year not listed)	33	17.8
Total High School	55	29.10
College	1	.5
Post Graduate	2	1.0
Company should not influence	5	2.7
Response does not apply	4	2.2

Tear out this page for future reference

▲ Teacher and pupils are comfortable in any weather . . . in every part of the room with this Nesbitt heating, ventilating and natural cooling system. It combines the use of a Nesbitt Syncretizer unit ventilator in each classroom with Nesbitt Wind-o-line radiation installed all along the window sill (see above). Radiant heat protects teacher and pupils against excessive loss of body heat; while convected heat along the sill warms chilling downdrafts. Three-way classroom payoff: outstanding comfort, operating economy, good appearance. Layout diagrams below help to show how the Nesbitt Series Hot Water Wind-o-line System provides protected learning environment.





▲ Conventional layout (showing how perimeter trenches are used to carry the supply and return piping under the floor), is used for both steam and hot water systems. As you can see, it calls for costly trenches or crawl space, mains, runouts and pipe insulation. All take a big bite out of your heating and ventilating dollar, and all can be dispensed with when you use . . .

▲ the Nesbitt Series Hot Water Wind-o-line System. The Nesbitt Syncretizer unit ventilator, installed in each classroom on this system, requires only about ⅓ as much hot water as do conventional systems. As a result, smaller pumps and pipes are used. The only supply and return piping you need in a classroom wing (see above) is the Nesbitt Wind-o-line Radiation itself.

Here are the figures that prove you can have a

Quality Heating and Ventilating System

. . . within a sound, realistic budget!

Nesbitt Systems are making possible savings of as much as 20% over conventional systems in typical schools all across the country.

Some of the Recent Low Costs for Quality Heating and Ventilating Systems:

IN NEW JERSEY $1.67 sq. ft.
Pennsauken High School,
Pennsauken, N. J.
Architect: Faint & D'Anastasio
Engineer: John Knecht
Capacity: 1800 pupils
Gross Area: 188,000 sq. ft.
Total Contract: $2,844,659
Heating and Ventilating: $314,986

IN OHIO $1.91 sq. ft.
Young Elementary School,
Springfield Township, Ohio
Architect: W. B. Huff & Assoc.
Engineer: Paul Fleming
Capacity: 300 pupils
Gross Area: 22,000 sq. ft.
Total Contract: $335,071
Heating and Ventilating: $42,025

IN ILLINOIS $1.41 sq. ft.
Creve Coeur Elementary School,
Creve Coeur, Illinois
Architect & Engineer:
George Poppo Wearda
Capacity: 256 pupils
Gross Area: 11,800 sq. ft.
Total Contract: $156,124
Heating and Ventilating: $16,664

■ ■ ■ Compared with the installed costs of some other systems, the Nesbitt Series Hot Water Wind-o-line System saves you as much as 20% on construction, equipment and installation costs. Each classroom has its own Nesbitt *Syncretizer* unit ventilator for heating, ventilating and natural air cooling. And Nesbitt Wind-o-line radiation extends along the sill to protect pupils seated near windows from cold walls and window downdraft.

No other unit ventilator provides *controlled* heating, ventilating and natural cooling as effectively as the Nesbitt *Syncretizer*. When used in combination with Nesbitt Wind-o-line radiation, the result is healthful, productive comfort—free of physical distraction—for every pupil in the room whether he sits near the window or at the other side of the room. *Only the comfortable student can maintain maximum learning efficiency.*

Send for the big book on the value of controlled ventilation, More Learning per School Dollar.

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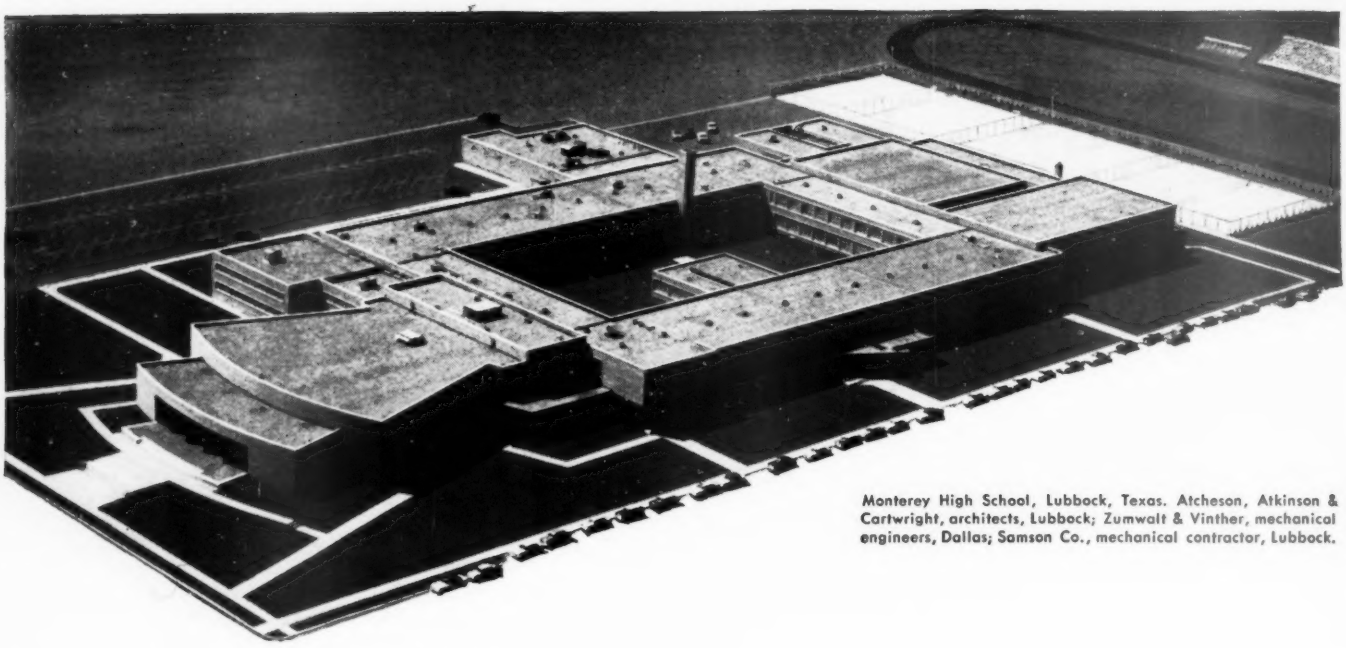
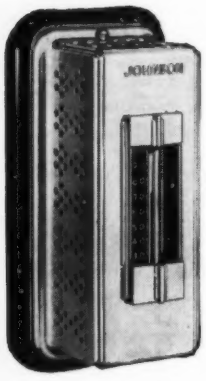


Monterey High School, Lubbock, Texas. Atcheson, Atkinson & Cartwright, architects, Lubbock; Zumwalt & Vinther, mechanical engineers, Dallas; Samson Co., mechanical contractor, Lubbock.

Johnson Pneumatic Controls Make Any School More Efficient, Less Costly to Operate



The impressive Monterey High School in Lubbock, Texas, is a good example of the modern comfort-economy combination provided by Johnson Pneumatic Temperature Control Systems.

Besides classrooms, this outstanding school building contains laboratories, numerous shops, visual education rooms, a library, two gymnasiums, a cafeteria, a large auditorium and an air conditioned office area.

With all rooms individually comfort controlled by Johnson Thermostats, each of many different heating, cooling and ventilating demands can be met simultaneously. Each activity takes place under the best thermal conditions the school's mechanical equipment can provide. Results: consistent comfort for every purpose, a more efficient learning environment for students, a more productive working environment for teachers.

The flexible, precision operation of this modern control system keeps operating costs at a minimum. It cuts fuel expense by eliminating overheating and overcooling. And, of course, simple, trouble-free pneumatic controls require less supervision and maintenance than anything else you can use.

When you build, the specialist Johnson organization can help make your school more efficient and reduce your operating costs. Ask your consulting engineer, architect or local Johnson engineer about the unmatched comfort and economy features of a Johnson Pneumatic Control System. Johnson Service Company, Milwaukee 1, Wisconsin. Direct Branch Offices in Principal Cities.

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WHERE TO GET HELP

A guide to useful information

BUILDING

School Buildings. The impact and effect of the physical school plant on the student, teacher and curriculum are discussed in this profusely illustrated booklet. During the past 12 years a new awareness has developed of the interrelation of school plant and program. The considerations of building design must now include, the authors point out, such factors as the relation of the school to community facilities, use of instructional materials, provision for guidance services, special service rooms and provisions for outdoor learning and recreational experiences.

CURRICULUM AND THE ELEMENTARY SCHOOL PLANT. *By Helen Heffernan and Charles Bursch. Published by the Association for Supervision and Curriculum Development, National Education Association, 1201 Sixteenth Street, N.W., Washington 6, D. C. $1.50.*

FUTURE SCHOOLS

New Answers. An up-to-date look into the financial, physical and personnel requirements of schools during the next ten years. This 300-page book is Volume I of a study project on the financing of public schools conducted by the Institute for Social Science Research. Written by Roger A. Freeman, the book details what this country will spend for education in the next ten years, and the methods through which we can logically expect to pay for it. The author points out that if past and present expenditure trends continue, public school costs will at least double by 1970, and major tax boosts will be required to foot the bill.

Present enrollment in elementary and secondary schools, both public and private, is examined, and information on how this picture will change by 1970 is included. A new look at the teacher shortage is provided, with analyses of teaching salaries, class size, promotion policies, and methods of more effectively utilizing teachers' time. An examination of the present classroom shortage and current building costs is offered, together with predictions of what the next decade will bring in these fields.

SCHOOL NEEDS IN THE DECADE AHEAD. *By Roger A. Freedman. Published by The Institute for Social Science Research, 917 15th Street, N. W., Washington 5, D. C. $5.*

CURRICULUM

The Role of Physical Education. A detailed guide to modern methods of teaching physical education and integrating it with classroom instruction. Written by James H. Humphrey, professor of physical education and health education at the University of Maryland, the book is divided into two sections: "Principles and Practices," and "Integration." Section one deals with specific activities and methods of teaching, while the second section is concerned with the satisfactory integration of physical education with other curriculum areas. It is the author's contention that proper instructional methods in physical education can help the child master concepts of arithmetic, language arts, social studies and science.

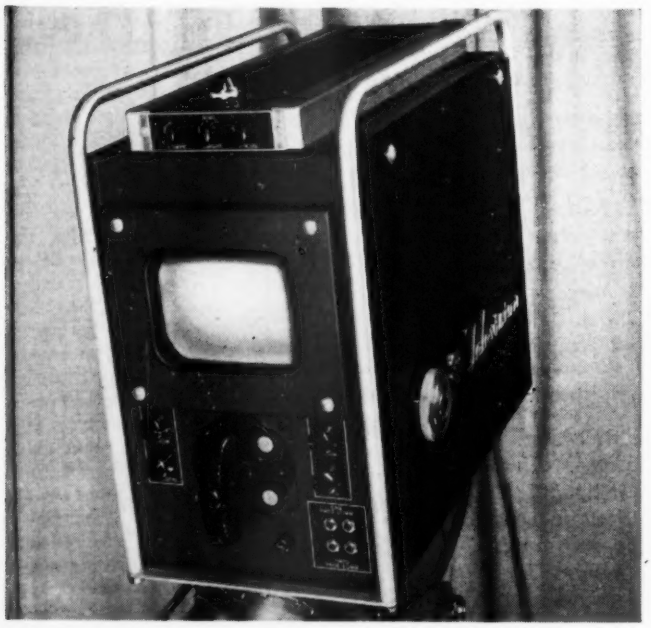
ELEMENTARY SCHOOL PHYSICAL EDUCATION. *By James H. Humphrey. Published by Harper & Brothers, 49 East 33rd Street, New York 16, N. Y. $4.75.*

Science Teaching. A comprehensive pamphlet detailing the thinking, experimentation and research in elementary school science instruction. The authors come to grips with the problems of purpose, method and curriculum-organization, in the light of the practical present day classroom situation. An authoritative guide for any person concerned with science in the elementary schools.

ELEMENTARY SCHOOL SCIENCE: RESEARCH, THEORY AND PRACTICE. *By Maxine Dunfee and Julian Greenlee. Published by the Association for Supervision and Curriculum Development, National Education Association, 1201 Sixteenth Street, N. W., Washington 6, D. C. $1.00.*

Here's your "wise buy"

View of the TK-15 Vidicon Camera as seen from the front. Note 9-inch 4 lens turret, which can accommodate zoom lens and 3 standard lenses.



Rear view showing large 7-inch viewfinder and controls.

Expandable

WITH RCA

This is a high quality vidicon camera which meets professional standards in many ways yet is available at a price consistent with educational budgets. The TK-15 is dependable, easy to operate and maintain, and built to endure rough usage —it is the finest quality vidicon camera yet developed for educational needs.

TK-15 features include the following: feedback circuits for constant high-quality pictures . . . built-in test signals for maintenance of peak performance . . . a 7-inch viewfinder for easier focusing and framing of pictures . . . a four lens turret large enough to permit simultaneous mounting of zoom and standard lenses . . . sturdy camera construction. These features result in the reliability and performance required by effective educational programming.

Educational TV systems may begin with a single TK-15 camera as a nucleus, and then be expanded to include film and slide facilities, as well as additional live cameras—all without rendering obsolete original equipment.

Your requirements for educational television can be met to best advantage with this efficient, expandable new RCA equipment.

Dependable!

Easy to Operate!

Easy to Maintain!

Please send new brochure "TK-15 Camera"

NAME_____ TITLE_____

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NEW BROCHURE

also complete list of TK-15 users available on request. Mail coupon. RCA, Dept. J-110, Building 15-1, Camden, N. J. In Canada: RCA VICTOR Company Ltd., Montreal.

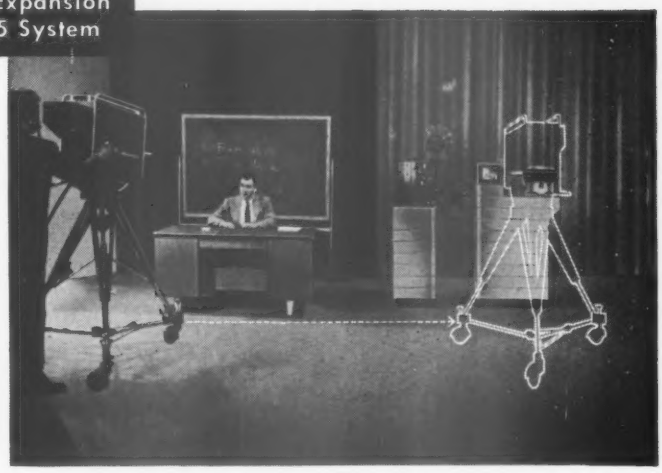
for Educational Television

RCA Vidicon Camera System

TYPE TK-15 VIDICON CAMERA

4 Steps in Expansion with TK-15 System

1. Start with one-camera system. The TK-15 is the heart of a basic television system.



2. Expand to include film and slide accessories using the same camera.

3. Expand to a two-camera system with film and slide accessories.

4. Expand to a system with two live cameras and full film and slide facilities incorporating vidicon film camera.

RCA

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RADIO CORPORATION of AMERICA

BROADCAST AND TELEVISION EQUIPMENT

CAMDEN, N. J.

(Circle number 711 for more information)

WE CAN HAVE THE SCHOOLS WE WANT!

That is, if we want better schools badly enough to work . . . and keep on working . . . for them!

Great strides have already been made in the never-ending struggle to provide enough classrooms for our country's schools, enough teachers, enough textbooks and supplies. Citizens in communities across the country have banded together in local groups to face the problems that have been endangering their children's education . . . *and* their future. These citizens have found that working for better schools can be one of the most rewarding of all experiences . . . as well as the finest of contributions to their communities and children.

The need for better schools, however, right here in our community . . . as well as elsewhere . . . is still very much with us and will continue to be with us for years to come. Only by planning and working together (for at least another ten years) will we have the schools our children deserve.

For information on how other communities have faced their problems, write today to BETTER SCHOOLS, 9 East 40th Street, New York 36, New York.

PUBLIC SERVICE ADVERTISING COUNCIL

NEWS OF THE SCHOOLS

A digest of current happenings in public education

City studies salaries in effort to hold teachers

Employment of outside experts to study Cleveland's teacher and employee salary schedules, at a possible cost of $20,000, has been approved by the city's board of education.

The study will be made by the Cleveland Senior Council, a group of prominent retired Clevelanders. They will charge only expenses.

The board has also hired an accounting firm, Ernst & Ernst, to assist in the study at a fee of not more than $20,000.

The Cleveland board recently voted a flat $250 raise to its 4,000 teachers, boosting starting pay to $4,260 a year. Officials of the big system fear, however, that they still will lose teachers to suburban systems.

Results of the survey were asked by Aug. 25 so that a tax levy might be placed on the fall ballot if necessary for increases.

Parent-carpenters save equipment money

Ingenuity and parent cooperation are being substituted for money in providing play equipment for kindergarten children in the new Lewis Sands Elementary School, Chagrin Falls, Ohio. The school houses kindergartens and grades one through three.

Sand boxes, library tables, doll beds, toy chests, jungle gyms and two deluxe four-sided painting easels are being built by school parents in their home workshops.

Funds were short when classes moved into the new 14-room building last December. Play equipment brought from the former kindergarten quarters in a local church left plenty of bare space in the spacious new rooms.

Custodian Cliff Rentz sketched plans for easels, sandboxes and various chests. Lumber was purchased, which Rentz precut and marked. A call to the PTA was answered by 12 fathers who agreed to assemble Rentz's designs at their homes.

Chagrin's new superintendent Dr. Robert M. Finley, estimates that the completed equipment has a value of $350. The lumber cost only $70 and the parent-power was provided free.

Change in board rules buys bargain schools

In Louisville, Ky., costs of school building have been cut considerably by changes in the state board of education specifications for schools. The changes came in time to facilitate the building of the Perry School in Louisville at the startlingly low price cost of $695,774.

The school has 28 classrooms and houses 924 students. The Rubado School, in the same city, built prior to the changes, had cost $ 824,742, and holds only 726 students in 22 classrooms.

The board made it possible to have nine-foot 10-inch ceilings instead of 11-foot ones, and 29 x 29-foot classrooms instead of 36 x 22-foot ones. The square classrooms shorten corridors.

Foundation problems have been alleviated by the use of pre-cast concrete floors rather than regular flooring over a crawl space.

Another major factor in bringing down the costs, a school architect affirmed, was that "contractors are a little hungrier today."

Manual offers schools bike safety program

A detailed booklet designed for use in establishing school bicycle safety programs has been published by the

Too good to miss . . .

Special session . . . A move is on in Alabama to call the state legislature into special session to meet the current financial crisis in the state's schools. The crisis was caused by the legislators when they cut funds to the schools by 10%. Superintendent I. F. Simmons of Jefferson County pointed out that this cut will cost his school system alone $580,000.

Teacher boycott . . . The Connecticut Education Association, representing 85% of the state's teachers, has called for a boycott of the West Haven schools on grounds that "sound educational policies are being violated." The association said that inadequate salaries and poor morale brought about by political and parental pressures on the teachers, had caused the action. The West Haven board has indicated that it sees no need for any changes.

Failure rate . . . Milltown, N. J. residents were shocked recently when almost 25% of the town's elementary school graduating class was left back. Parents generally blamed "educational procedures" for the failures, claiming that Superintendent Edward S. Rickards suddenly raised standards in the school. Rickards placed the blame squarely on the community. He pointed out that Milltown has a highly developed recreation program with activities scheduled almost every weekday night. Homework, he noted, is also scheduled for every weekday night. "It is up to the parents," he said, "to decide which shall occupy their child's time."

New Mexico State Department of Education in Sante Fe. Titled "Bicycle Safety Manual," the 38-page illustrated booklet discusses the joint responsibilities of schools, parents and the community in the matter. Safety education is also described, along with proper riding technique and the care and maintenance of the bicycle. There are sample skill and written tests, licensing practices, regulations and signs affecting cyclists, and sources for help. A special section is devoted to motor bikes and motor scooters.

Sole purpose of the manual, according to an introduction by Mrs. Georgia L. Lusk, state superintendent of public instruction, is to make cycling "a safe and enjoyable sport for everyone." Importance of bike safety, she says, is in its citizenship values, teaching youngsters "to take an interest in other problems of traffic safety including that of becoming a good driver."

Effectiveness of bicycle safety programs, meanwhile, has been demonstrated in Kansas City, Mo., where a safety program has produced a 100% reduction in bike accidents in its first year of operation. More than 4,000 boys and girls took part in the program which was sponsored by PTA chapters in individual schools.

Prefab buildings may provide school space

In Patchogue, N. Y., the board of education is considering a plan to relieve elementary school space-shortage problems by using military surplus prefab buildings. The plan, sponsored by a special PTA committee, involves the use of Butler Buildings, similar in appearance to gabled garages, to provide room for 486 elementary school pupils. This would put an end to the district's split-session classes.

Women students say they want to stay home

A recent study of more than 1,000 high school and college girls conducted by the Department of Rural Sociology of the State College of Washington revealed that 80% preferred being homebodies to launching into the career world.

It was found that the young women felt more responsible for the maintenance of family peace than did men. In reply to the question "If you knew that the person you loved most was opposed to your taking the job most to your liking, would you still accept it?" 55% of the college girls, as opposed to 17% of the men, answered "no."

It was further found that the girls preferred work situations which involved personal relationships, while men were more inclined to working with "things" or "ideas."

A growing tendency for young women to consider their role a dual one—wife and worker—was also noted.

Lecturers replace dental hygienists

The New Hyde Park, N. Y., school board has replaced its two full-time dental hygienists with a panel of six dentists who will give regular lectures on tooth care at all district schools. There will be no dental inspections as such, but students will be required to submit a card signed by their family dentist certifying that their teeth have been examined.

The new program was established, at the suggestion of the dentists themselves, after the school board received complaints from parents that the dismissal of the hygienists was a serious curtailment of essential services.

Federal aid favored in latest poll

A report from Iowa shows that Federal aid for education was favored by more than two-thirds of the voters in a poll conducted early in the year.

Better than 63% of the 5,600 people, replying to Senator Thomas E. Martin's annual questionnaire to the state, answered yes to the question: "Do you approve Federal grants to states to improve instruction in the fields of science, mathematics, and languages, and Federal scholarships to be awarded by state agencies?"

Fire plug not school responsibility

The Waldwick, N. J., school board was recently told by its attorney that

a school in its district should not have to pay the costs of a new fire hydrant installed nearby, since the school was entitled to fire plug protection just as any individual taxpayer is.

Superintendent John J. Finnessey had met with the borough fire chief, and was told that a new plug was needed near the teacher's parking lot on the school grounds.

Costs of the water line and the fire plug would run about $5,000. Board President Theodore Lurie said that, in his opinion, there was not even an absolute need for the new plug, since the school now enjoys a first class insurance rating which was made even lower after the school was opened for six months.

The board's insurance agent was consulted on the matter, and there will be further meetings to decide the issue.

Student art to be televised

Water color paintings done by Queens County, N. Y. elementary school students may be used as background material for an NBC "Mother Goose" telecast which is scheduled to appear Dec. 21 as part of the "Shirley Temple Storybook" series.

The drawings, which were called to the network's attention by a teacher, are products of an art program, specially designed for gifted children, which has been integrated with the regular curriculum. Many of the paintings are imaginative and graphic representations of Mother Goose and other fairy tale characters.

The entire collection will be sent to Hollywood where the ones most appropriate to the telecast will be selected.

Actors protest board plan

Plans of the New York City board of education to assimilate the High School of Performing Arts with the High School of Commerce in the city's proposed Lincoln Square Project are being protested by various groups.

Under the plan, the 660 performing arts students would join the 1800 to 2400 commerce students in one building.

The performing arts school trains students for careers in drama, music and the dance. Many of Broadway's

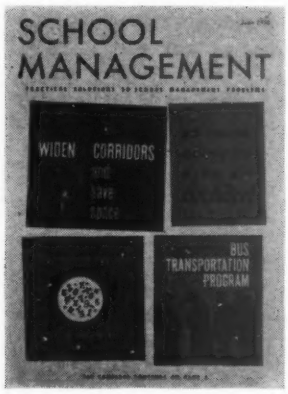
"The thing I most like is the fact that your magazine gives the board members and me a shared interest at a truly professional level."

J. H. McBRIDE
Superintendent, Norwalk, Ohio

MANAGING A SCHOOL DISTRICT IS A TEAM OPERATION

and nobody knows it better than the men and women who read **SCHOOL MANAGEMENT.**

It's why, whenever you see a good school system, you see a school board, an administrator and community leaders working in close harmony. It's also why **SCHOOL MANAGEMENT** devotes so much of its effort toward establishing a common language for *all* members of the school team.



child stars attend the school while they are working.

Actor-alumni and members of the school's PTA, convinced that "amalgamation means annihilation," are rallying for public support of their efforts to prevent the merger. Efforts are being made to contact New York's Mayor Wagner on the matter.

Newspapers and civic groups in the area have joined in protesting the merger.

Capacity of gifted child to be tested

Twenty-seven gifted children, to be chosen through IQ tests and records of past achievements, will become "guinea pigs" in a unique educational experiment at Livingston High School, Livingston, N. J.

The 27 will be taken from among the incoming seventh graders at Livingston junior high next fall. The experiment is designed to show exactly what acceleration and enrichment of education can accomplish from seventh through the 12th grades. Parents of the children selected will be asked to give their consent.

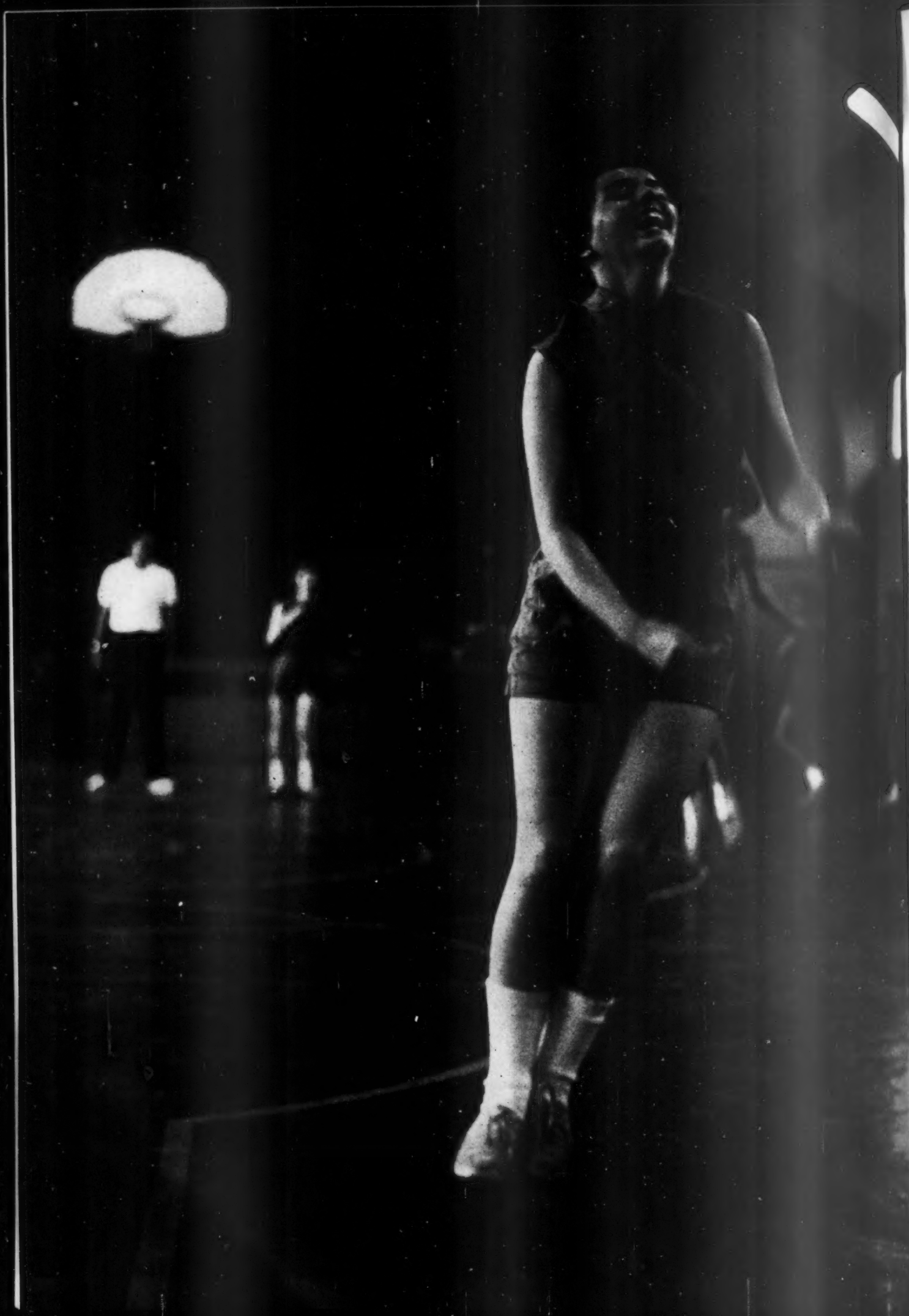
Acceleration and enrichment will be applied to such courses as English, math, science, social studies, foreign languages and typing. Students will also be allowed some special latitude in choosing the courses they take.

A similar experiment is being conducted this summer at the Iowa State Teachers College. It may result in improved courses of study in the state's public schools.

Some 60 children of exceptional learning ability have been chosen to take an eight-week experimental classroom program at the college this summer. Throughout the following school year, the 60 children will be given extensive tests to determine the benefits of the summer program.

Purpose of the study is to develop a model curriculum for rural and small city schools to provide increased educational opportunities for youngsters who learn more rapidly than their classmates. The summer course stresses such subjects as abstract thinking, logic and concept formation. The study is being financed by a $44,000 grant from the U.S. Office of Education.

Statistics released by the motor vehicle and education departments of Vermont show that in one of the nation's smallest states (Only six have less area; only three less population) school buses travel a total of 4,062,023 miles per year to transport 23,012 children to and from their classes.



HOW GOOD—OR BAD—IS

Your physical education program?

In today's educational climate, physical training is coming out "second best" in many districts. In this interview, one of the country's best-known authorities on physical education speaks out on what is needed at the local level to meet our students' needs.

■ ■ ■ During the summer of 1955, President Eisenhower held a White House conference with a group of leaders in the field of physical education. He called the meeting because, earlier in the year, he had been shown the results of a series of six tests which proved that more than half the children in the nation could not meet *minimum* standards of physical fitness.

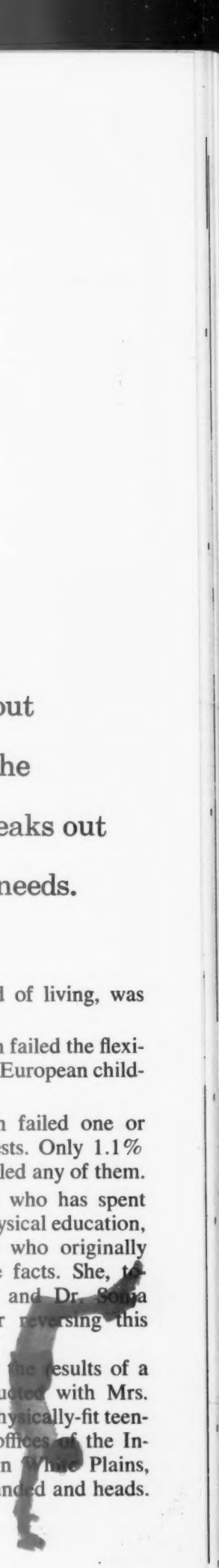
These six tests—called the Kraus-Weber tests of minimum muscular fitness—have nothing to do with a child's ability to do well in sports. They simply measure his ability to hold himself straight, to walk, and to meet the everyday demands that modern living put on a person's body. *(see pages 22-23.)*

These are the shocking results that the tests revealed:

- 57.9% of the American children examined failed one or more of the six simple tests. The failure rate for European children, despite a relatively poorer standard of living, was only 8.7%.
- 44.3% of American children failed the flexibility test. Only 7.8% of the European children failed it.
- 35% of American children failed one or more of the five strength tests. Only 1.1% of the European children failed any of them.

Bonnie Prudden, a woman who has spent years working in the field of physical education, was one of the three people who originally alerted the President to these facts. She, together with Dr. Hans Kraus and Dr. Sonja Weber, presented a plan for reversing this alarming trend.

On the following pages are the results of a tape-recorded interview conducted with Mrs. Prudden—the mother of two physically-fit teenage girls—last month in the offices of the Institute for Physical Fitness, in White Plains, N. Y., an organization she founded and heads.

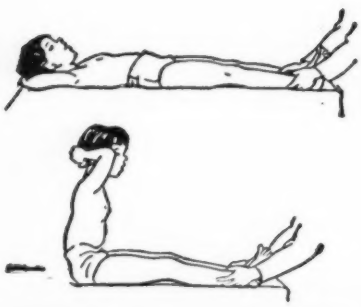


PHOTOS BY LAURENCE LUSTIG

THESE ARE THE SIX KRAUS-WEBER TESTS FO

ABDOMINALS AND PSOAS

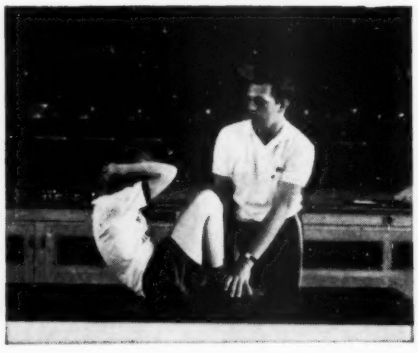
1



The person taking this test lies flat on his back, hands behind his neck. The instructor holds his feet down and commands him to "roll up into a sitting position." If the person cannot sit up, he fails.

ABDOMINALS ALONE

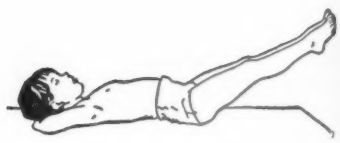
2

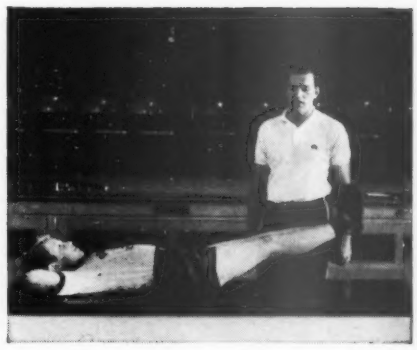


In this test the subject again lies on his back but this time with his legs bent at the knees. The instructor gives the same commands as in Test One. This test is slightly more difficult than the first.

LOWER ABDOMINALS

3





Once again the subject starts on his back, hands behind his neck. From this position he must raise his legs 10 inches off the table keeping his knees straight. He must hold them there for 10 seconds.

Drawings by Marjorie Morris From "Is Your Child Really Fit?" (Harpers & Bros., 1956)

Q To start with, let's ask the basic question: What is wrong with the physical fitness of our youth? And how did we reach this state?

PRUDDEN: We have become supermechanized. Fifty years ago, the necessities of moving—just the necessity of walking to get anyplace—developed muscles, fair posture, flexibility and endurance. Today we keep our kids in playpens and strollers; in school buses and behind desks; in front of TV sets and in the movies. They get very little physical release for all these stimuli. Man is basically, or was, a warrior animal type. He requires physical expression.

Q: When you say "man," are you talking about males only?

PRUDDEN: No. Women have always carried heavy burdens. We are built for much more physical activity than we are getting today. In consequence, you notice that girls have rounded shoulders and widening hips and they're flabby and they're soft and they don't stand up straight. They have no stamina. This stamina is very important for a lot of things. For instance, if you are going to have a baby. The requirements are the same for having a baby today as they were a couple of thousand years ago. If you don't have the proper muscles, having the baby is more difficult, and getting your figure back is much more difficult.

Q: Relating this to our schools, in your book, "Is Your Child Really Fit?" you suggested that our problem starts before school, in the crib, in the stroller, in the playpen. Can the schools overcome this handicap?

PRUDDEN: They could, in theory. But 91% of our elementary schools have no gyms. Any good doctor will tell you that the critical years are somewhere between birth and when a child's 10 or 12-years old. They determine what he's going to be emotionally and physically. Now, if we had the facilities that we should have, children at the age of six would come in to school and we could help them—we could help them in a very short time. But the equipment is not available in schools today.

Q: Did they have it 20 or 50 years ago?

PRUDDEN: Twenty years ago they

FOR MINIMUM MUSCULAR FITNESS

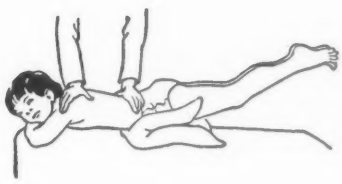
UPPER BACK MUSCLES

4

The subject lies on his stomach, with a pillow placed under his hips. The instructor holds his feet down and commands him to raise his chest, head and shoulders from the table and hold them up for 10 seconds.

LOWER BACK MUSCLES

5



For the fifth test, the instructor holds the subject's chest down and commands him to raise his legs while keeping his knees straight. The person being tested must hold this position for 10 seconds to pass.

FLEXIBILITY

6

The subject stands at attention, then bends from the waist, knees straight, to touch the floor. He must hold that position without "bouncing" for three seconds. This is the test most often failed.

did. But then we began this new thing called "play." Play could do everything. Games were the thing. We began to work on the total personality. Now, the physical educator's job is physical. If he pursues the total personality, he gets lost. In order to get a strong body, a kid has to work hard. In doing so, he gets a certain amount of character building. But it's not play.

Q: In other words you don't feel games, in themselves, provide physical education?

PRUDDEN: Definitely not.

Q: Is it actually necessary to do gymnastics to get proper exercise? Can't a child gain just as much exercise running around in a playground?

PRUDDEN: Here's the premise that's difficult to answer. Let me say this—if a kid is full of drive, and has been allowed to move around until he's six, he has to move. He'll move. He's got the habit. These are the kids that you find in the tops of the trees and that you have to pull off the flag pole. But, the others don't respond that way. Now, if you are playing games, the tough competitive youngster will play very hard. He will use every minute to his advantage. The one who really doesn't care too much, will let the ball go by—he won't struggle for it, he won't jump for it. So while the game premise is theoretically sound, it has not worked out in practice. The Kraus-Weber tests prove it.

Q: What are these tests? What do they actually measure?

Bonnie Prudden discusses fitness in her White Plains office

"Man is basically a warrior animal.

PRUDDEN: These are tests of *minimum* physical fitness developed by doctors to measure this level. They measure the minimum muscular efficiency of key posture muscles. Key posture muscles are the ones you use to stand up with—the abdominal and the back muscles. For example, a child lies on his back on the floor and you hold his feet down. He puts his hands behind his neck and you ask him to sit up. If he cannot sit up once, he does not have much in the way of abdominal strength. *Here in this country 25% of the youngsters between the ages of six and 16 can't sit up once!* In Europe we had something like 1.5% failure on that.

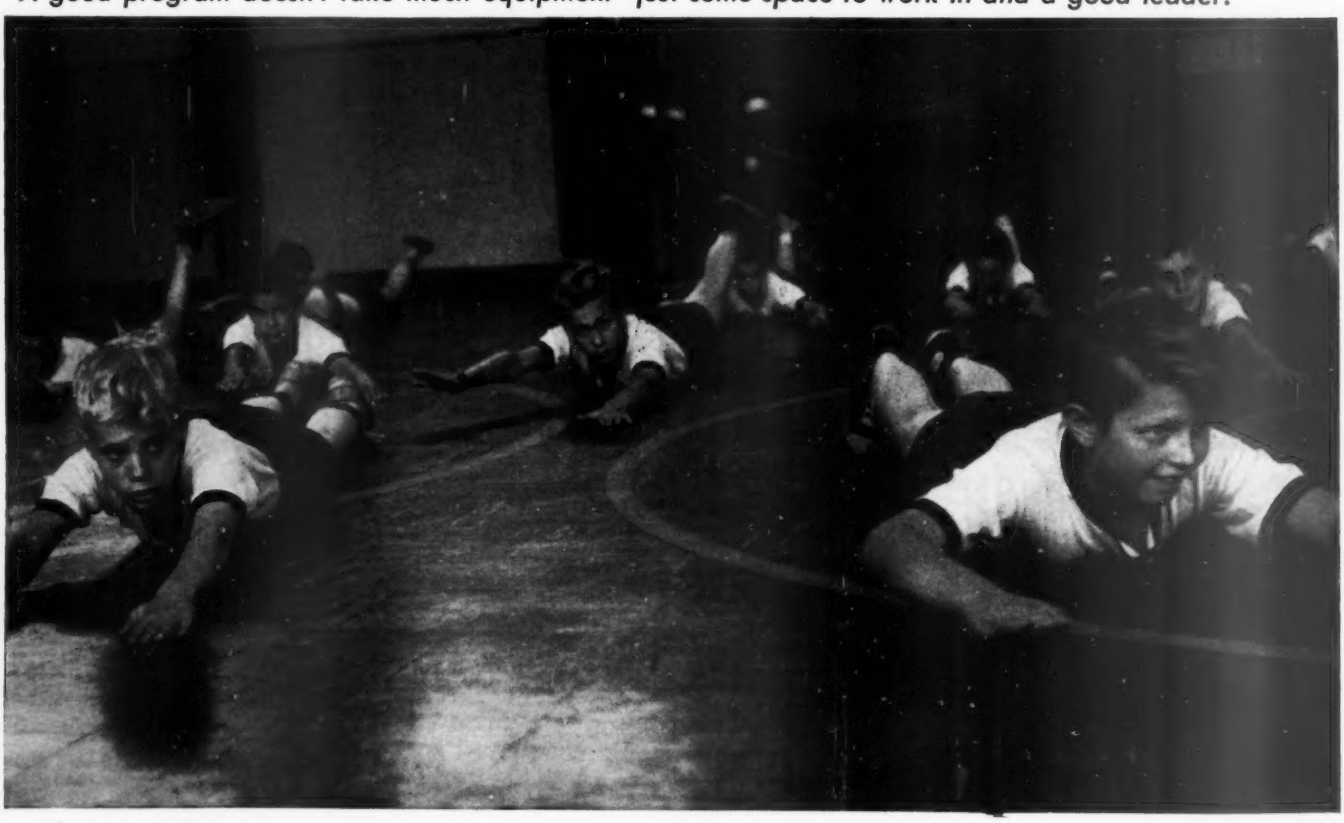
Q: In other words, this isn't measuring just how many times you can chin yourself?

PRUDDEN: We don't find one boy in 50 who can chin himself . . . not even once. So why measure how many times?

Q: Do you feel that the schools are to blame for the drop in physical activity?

PRUDDEN: Very much so. But I think I would put more blame in the laps of the parents. Here's what has happened: some child would break a shoulder on a horizontal bar and the parent would sue the school. The school board would then become sensitive and remove this particular piece of equipment. In another case, a hard baseball would knock somebody out, and then they wouldn't have any more hard baseball. At a school I once sent my children to, a child had a broken knee 35 years before from playing basketball, and my kids didn't get any basketball because they decided that never again was anybody

"A good program doesn't take much equipment—just some space to work in and a good leader."



He requires physical expression."

"The instructor must be able to do everything he asks the student to do. He must set an example."

THE PICTURES IN THIS STORY were taken in Redding, Conn. where, for the last three years they have been proving that basic exercises can build strong bodies—and can be fun, too. Working under the direction of Gym Instructor Bill Snyder the students have reduced their Kraus-Weber failure rate to just 9%. At the same time they are producing many of the area's best teams and athletes.

"Don't forget, under every curve, there's got to be a muscle."

going to break [illegible] ee in their gymnasium. This is ridiculous.

Q: Actually, how often does something like this happen?

PRUDDEN: Too often. I don't have the figures. But too often. Talk to a physical education person. He wants very badly to do a job, but you find that he's stymied.

Q In other words, the schools themselves are afraid to put in the equipment necessary to do a good job?

PRUDDEN: This is the new fear in America. We're an awfully scared nation. We're clutching right now. Parents are afraid that their child will get sweaty and then catch a cold. They write notes by the dozen keeping the kids out of gym. I remember one school where a woman called up and asked the principal to please let her 15-year-old son stay in school until she could get there because it was drizzling outdoors and he had just changed from his winter to his summer underwear!

Q: Speaking of being excused from gym, is there a correlation between physical fitness and attendance at gym programs?

PRUDDEN: Yes. We set up a pilot study in Greenacres School in Scarsdale, New York. The parents gave the Kraus-Weber test to their children three times a year at home and they presented the results to the physical education department. It gave the physical education department a very good chance to say "Yes, your child is failing because we have not had him in gym more than twice this year."

Q: You mention in your book that parents object to physical activity because their children tire easily. Is there anything to support this?

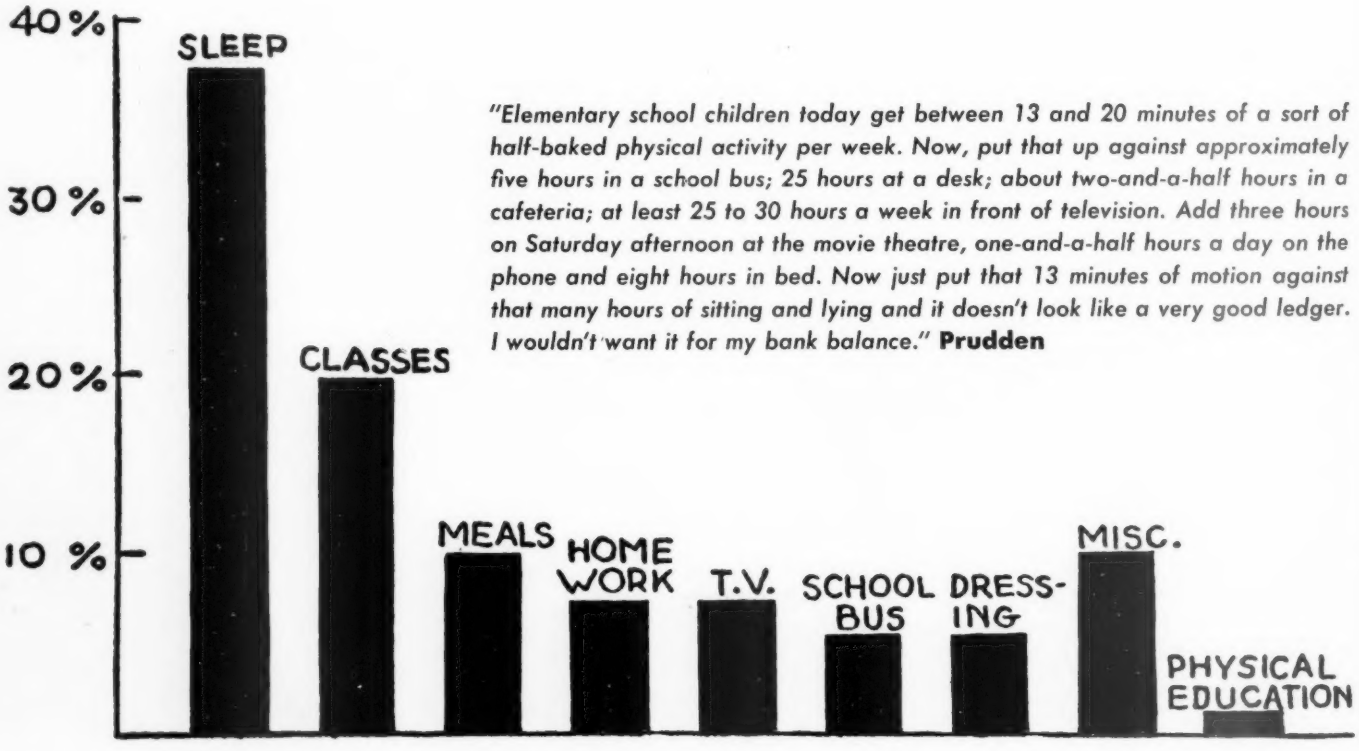
PRUDDEN: You know why they tire easily? Because they haven't done anything. An exercised body does not tire. Moderate overloading is what *builds* the body. You do a little more than you really would like to and gradually you raise your strength. Now this also works in the reverse. The child is tired so he doesn't want to do anything, so he sits down. You know yourself, if you go to bed for three days you get up and you feel kind of weak. Alright, he sits down and he lies down long enough, he's sort of weak. So, then he tries to do something and he's tired. He's too tired to go out and play so he goes home and sits down. So he gets weak, so he's too tired to go out and play.

Q: Actually then, there is a difference here between physical tiredness, feeling "good-and-tired," and the tense tiredness of the kind where you don't sleep at night?

PRUDDEN: That's absolutely right. I like the phrase "good and tired"—there's a difference. You can get rid of some of these tensions physically. Have you ever seen an animal after running madly around the neighborhood? He comes home —BOOMP—he's asleep. With children this is true, too. A child will not overdo as a rule. When he's tired, he sits down. You don't have to worry about his every *overdoing*. You do have to worry very much about his *underdoing*.

Q: Relating this to our schools—do you feel exercise during school

continued on page 54



"Elementary school children today get between 13 and 20 minutes of a sort of half-baked physical activity per week. Now, put that up against approximately five hours in a school bus; 25 hours at a desk; about two-and-a-half hours in a cafeteria; at least 25 to 30 hours a week in front of television. Add three hours on Saturday afternoon at the movie theatre, one-and-a-half hours a day on the phone and eight hours in bed. Now just put that 13 minutes of motion against that many hours of sitting and lying and it doesn't look like a very good ledger. I wouldn't want it for my bank balance." **Prudden**

EXPLORATIONS IN EDUCATION

What are others doing to improve their local schools? Here is the first report of a joint research program that will make available to school boards and superintendents, and others in education, information on new and fresh approaches to utilization of school facilities.

■ ■ ■ You will find on the following pages the first in a series of round-up articles dealing with local *experimental* efforts to improve education and increase staff utilization.

We think you may be interested in how this series got started and what it is intended to accomplish. Here's the story:

Early this year, we were approached by the education committee of the Massachusetts Association of School Committees (i.e. school boards). They told us they were planning a national survey of new and fresh approaches to the utilization of school personnel. SCHOOL MANAGEMENT was asked to cooperate because of its unique ability to reach the school board and superintendent of all districts in the U. S. with more than 300 pupils.

This isn't the first time such a survey has been attempted. Last year, Lloyd Trump, on behalf of the National Association of Secondary-School Principals, made a similar effort. He went directly to each of the state directors and supervisors of secondary education. They were asked to name schools in their states where such studies were underway. He agreed to get in touch with the schools listed to discover the nature of their experiments. Results were mixed. While valuable case histories were uncovered, only 46 bonafide examples of experiments leading directly or indirectly to better staff utilization were uncovered.

Says Trump: "It is surprising how difficult it is to find out what is going on experimentally. This is a real indictment of communications in the educational profession."

What to expect in coming months

Dr. Trump's experimental reports are confined to secondary school programs. Our

EXPLORATIONS IN EDUCATION

joint effort with the Massachusetts committee will cover all levels of public education.

In the coming months we will report as many good examples of educational research as we can come by. But the continuing success of the program depends, quite obviously, on the willingness of men and women like yourself to *share* with others the benefits of your own local experiences.

Ask yourself, right now, "What are we doing in our district that can be of help or reassurance to other districts struggling to improve their schools?" Then glance through these few criteria of what we are seeking:

1. Any program that makes better use of teacher abilities.
2. Any program that breaks away from traditional concepts of class size and space utilization.
3. Any program that makes better use of the very limited number of hours in the school day.

Ground rules: your report need not be a long one. A letter is enough. Your experiment need not be a proven success. This is *Research*—and the very word "research" presupposes the right to fail.

What will happen to your reports?

Every report will be transmitted, immediately, to the Massachusetts committee to be added to their dossier of examples. Copies will also be sent to Dr. Trump. In addition, most reports will be published in this magazine if permission is granted. And last, but most important, schoolmen all over the country will be able to profit by your efforts.

Please address your material to:
Explorations in Education
School Management Magazine
22 West Putnam Ave.
Greenwich, Conn.

TEACHING TEAMS FOR LARGER CLASSES.

A TWO-YEAR STUDY of a new classroom organization plan that utilizes "teacher teams" to provide a more flexible school program will be started in Norwalk, Conn., next fall.

The study is being backed by a $75,000 grant from the Fund for the Advancement of Education of the Ford Foundation. Somewhat similar team plans have been tried in several other communities with reported success.

The plan involves the redeployment of staff members, salaries and school facilities. It also involves a break with the usual rigid organization of pupils into classes of approximately 30, each taught by a separate teacher.

Under the new plan, teams consisting of a "master" teacher, a second fully qualified teacher and a full-time non-teaching assistant will have charge of classes containing 75 to 90 pupils.

According to Marvin I. Gruss, chairman of the board of education, the study will determine if the plan can ultimately help make teaching a more attractive career.

The effect of the redeployment, he said, will be a better education for the pupils who will receive the benefits of a more flexible type of classroom organization in which the special strengths and talents of the teachers are fully utilized. The new plan also will provide higher salaries to participating teachers.

The master teacher or team leader will be placed on the same salary level as elementary school principals. This is 15% above the regular classroom teachers' schedule. The second teacher will receive about 5% more than the regular teacher's scale. The money to pay these increased salaries will be made up from the lesser salary paid to the non-professional assistants.

Pupils and teachers in four of this city's 17 elementary schools will take part in the project. Four experimental groups totalling 350 pupils will be picked at random, two at the second-grade level and two at the fifth-grade level.

Reported by the New York Times, May 29, 1958.

SEMINAR PROGRAM WITH OUTSIDE SPEAKERS.

EARLY IN 1956, an Essential Ideas Seminar based on the Great Ideas films made for television by Mortimer J. Adler was introduced in Briarcliff Manor, N. Y. It is now completing its second year in the high school.

The aims of the seminar are to give a foretaste of the intellectual fare students will encounter in college; to provide an honors course of genuine substance; and to enable parents and others in the community to become involved in the educational program by serving occasionally as seminar directors.

In the first year the seminar was open to about 20

seniors, roughly the top quarter of the class, and was offered during the last semester only. Aided by a grant from the Fund for the Advancement of Education, Briarcliff purchased 20 films in the Adler TV series, two sets of the Great Books, transformed a classroom into a library seminar-room and began sending out invitations to seminar leaders.

During the first semester the seminar was conducted, a dozen essential ideas were offered to the students, about one a week. The usual method was to distribute the study guide prepared by Mr. Adler for each subject on a Thursday or Friday in the hope that some of the suggested reading would be done over weekends. On Monday the film was shown. The remaining four daily periods were devoted to discussion. Seminar leaders in all cases were brought in from outside the schools. Three of the 12 were from the community.

One evening a week the community was invited to see the current film and to take part in a general discussion, led of course by the visiting expert. This proved to be a most successful aspect of the experiment. The turnout averaged close to 100. The sessions lasted two to two-and-a-half hours. Parents of the students in the courses were especially delighted to find in these evening sessions some common educational ground with their children, a rare experience in any community.

Four nearby school districts also participated to a limited extent during the first year. The state commissioner of education awarded credit for the course, and college admissions officers visiting Briarcliff promised extra consideration for applicants who had successfully coped with the essential ideas.

Including the purchase of films and books, and fees and expenses for seminar leaders, the first year's program cost about $15,000.

In the second year of the experiment, the academic year now ending, a number of changes were made. During the first semester the students selected for the seminar were given a preparatory course in what might be called "how to do independent work." No credit was offered for this semester's work. During the second semester eight ideas were discussed, one for each two week period rather than one a week as during the first year. Visiting experts were again employed, with the same result as in the first year.

Several efforts at appraising the experiment have been made. The students think it is wonderful and so do their parents. The Briarcliff faculty, after some initial hostility, now believes that such an offering has a place in the curriculum. The visiting experts tend to disagree about the manner of presentation though not about the value of the idea. College teachers now dealing with the first-year seminar participants report that they can see traces of it in the freshman work of this group.

The future of the seminar is now under discussion. There is agreement that the experiment cannot be called a success or a failure yet, and that an extension is warranted. Some of the principal observations and opinions concerning the seminar are:

1. A course of high octane intellectual content is very much needed in high school.

2. It should be open to all seniors, not only to the top of the class. The average college-bound student can cope with the essential ideas as well as he can cope with other subjects.

3. Visiting experts are expensive and a mistake besides. A faculty member trained as a discussion leader would give the seminar a continuity and coherence it now lacks.

4. The films are adequate, but should be re-made with seminars of high school seniors in mind.

5. The Great Books are the core of the experiment. A high school seminar could well be based on the study guides and the Great Books alone. (The films, however, have a unifying effect on the students' efforts, and a main attraction for adults.)

Reported by W. H. Ferry, school board member, Briarcliff Manor, N. Y.

SCHEDULING FOR INDIVIDUAL ATTENTION.

A UNIQUE EXPERIENCE in the assignment of staff and scheduling is being tried in Bradenton, Fla. During the school year, 21 to 24 Wednesdays are set aside as "study days." On study days, teachers do not hold regular classes, nor do they give new tests. They supervise pupils as they study individually, give make-up tests and help those who have been absent. In addition, teachers may request special group meetings, field trips and the like on these special days.

The schedules of students and teachers on study days are made three days in advance and are carefully controlled. All in all, students are able to obtain considerably more individual attention as a result of the plan.

Reported by Paul F. Davis, principal, Manatee County High School, Bradenton, Fla.

USE OF A NON-CERTIFICATED LIBRARIAN.

THE PROBLEM IN BEECHER, Ill. was how to provide the best library services possible to students and faculty of a small high school when an accredited librarian was unavailable. The school hired an acting librarian (non-certificated) and retained an instructor in library science from a nearby accredited library school to work with the acting librarian. He was to visit the school and guide the work.

Procedure: A survey of library facilities was made and deficiencies in certain subject areas were remedied. In addition, audio-visual materials that had been scattered throughout the school were centrally organized.

When the library itself was sufficiently ready, methodical instruction in the use of library tools was begun with the pupils. Shortly thereafter, the professional counselor spent two days with the librarian teaching her how to take inventory, how to make a simple form of a budget and bookkeeping system, how to make an an-

EXPLORATIONS IN EDUCATION *continued*

nual report and how to discard unsuitable materials. In addition, plans were made for the training of a student-librarian staff.

Results: In a matter of months, book circulation jumped about 50%. Book usage in the library more than doubled. The use of pamphlet material quadrupled as a result of classes having been taught how to use the various facilities in the library. Magazine usage dropped, but for an interesting reason: before, the experiment magazines were generally used in the library for pleasure reading. Later, data was accumulated on the use of magazines for reference purposes with the *Abridged Reader's Guide.*

Although this experiment is only midway in evaluation, it is quite evident that the library experiment is well on its way to success. Both student and faculty interest are running high. A phonograph with earphones, reading accelerators and tachistoscopes have been acquired and are being actively used. The study hall has been moved from the library.

Reported by John French, superintendent of schools, Community Unit District, 200-U, Beecher, Ill., in The Bulletin of the N.A.S.S.P.

STIMULATING FUTURE TEACHERS.

THIS STUDY WAS DESIGNED to provide practical experience, as a part of the guidance program, for students interested in teaching careers. San Lorenzo, Calif., students served as teaching assistants on the elementary school level for eight summer weeks. Elementary school pupils were so pleased with the situation that they competed for the opportunity to be in a group with high school students as assistants. Although summer session teachers found that they had to spend extra hours with high school students, they also reported that they had real assistance in their classes. For their part, the student aides felt they had gained a rewarding summer experience, and a number of them decided definitely to enter teacher education.

Reported by Nels B. Nelson, principal, San Lorenzo, Calif., High School.

HOW TO FIND OUT

WHAT PARENTS THINK

Interested, vocal parents can be a help to your schools. But it is up to you to first find out what they're really thinking. . . . You may be surprised.

■ ■ ■ There are two main groups that affect both classroom curricula and day-to-day school policies: parents and educators. Generally, the educators establish the curricula, the teaching procedures and rules, and the parents applaud or criticize, depending upon their personal prejudices. Too often there is a gap—or at least so it appears—between what the parents want for their children and what is actually offered in school.

The basic conflict is this: school policies and classes are either "too soft," or "too hard."

How, exactly, do parents feel about this? How do educators feel?

The only way to find out is to ask questions: the parents must ask the educators, and the educators must ask the parents. But effective communication between these two factions is rare.

It is generally acknowledged that the best education results from a close partnership between the home and the school. Such a partnership does not emerge automatically; it is achieved only through planned efforts and directed action usually initiated by the school. Effective two-way communication is an essential prerequisite.

Today some school districts are experimenting with communication methods; there is no perfect system, but progress is being made. Here are two examples of successful attempts to probe the parental mind.

Wellesley, Mass.

Poll Parents

■ Wellesley, Mass., the site of Wellesley College, is an education-oriented community. It is not surprising, therefore, that the public school officials should be sensitive to the attitudes and opinions of the parents in the district. Efforts are made to keep parents informed of the activities of the schools. Regular use is made of the town's newspaper, *The Townsman*. The school system publishes a quarterly house organ: *Your Schools;* a Parent Guide is sent to newcomers to

"The purpose of the Wellesley poll was to secure

Wellesley; and a steady flow of bulletins and leaflets are media used by the school officials to keep parents informed so that they may be in a position to give knowledgeable, cooperative assistance to the schools.

Except for regularly scheduled, individual parent-teacher conferences on the elementary school level, however, the communication flow has been one-way. To remedy this situation—to find out just what the parents thought—Superintendent of Schools John B. Chaffee, and Assistant Superintendent Roger M. Woodbury, devised a School Questionnaire. (*See box, below*) "In inviting parents to respond to a poll," says Woodbury, "we think of them not as experts in the field of education, but rather as consumer-reactors who see much of the results of the efforts of the schools. Like any business or service, we, the producers of a product—education—should have the benefit of reaction, and even evaluation of our efforts."

Reaction to and evaluation of the efforts of the schools was exactly what the educators got. In the spring of 1957 some 4,000 questionnaires went out to families of Wellesley public school pupils. A total of 996 polls, covering 1,000 youngsters, was returned by the end of the school year. During the summer months the returns were tabulated and the comments were summarized.

While the results of the Wellesley questionnaire gave school officials a good look into specific areas of parental concern, it also gave them an opportunity to pat themselves lightly on the back.

In answer to the question "I am generally 'very pleased, satisfied,

SCHOOL QUESTIONNAIRE WELLESLEY PUBLIC SCHOOLS

Answering this poll— ☐ Father ☐ Mother ☐ Both

1. I have children enrolled in grades—(circle)

K 1 2 3 4 5 6 7 8 9 10 11 12

2. We have lived in Wellesley for—(circle)

1 2 3 4 5 6 More years

3. I am generally— ☐ very pleased ☐ satisfied ☐ dissatisfied with my children's schools.

Comment _____

4. The instruction which my children have received has been—

☐ superior ☐ good ☐ adequate ☐ poor

Comment _____

6. I feel that the program offered my child in the following subject areas is:

(please check)	Excellent	Good	Adequate	Inadequate
Math				
Science				
For. Lang. (secondary school)				
Home Ec. (secondary school)				
English				
Social Studies				
Reading				
Ind. Arts (secondary school)				
Music				
Art				
Phys. Ed.				
Other				

Explain briefly why you have checked any subject "inadequate."

_____

5. It is my opinion that the activities and experiences designed to supplement the basic studies, provide enrichment and broaden the scope of the curriculum have been:

Activity	Excellent	Adequate	Poor	Too frequent	Infrequent
Assembly programs					
Club activities					
Student government					
Field trips					
Student publications					
School library					
Recreational activities					
Social activities					
Cultural activities					

Comment _____

constructive suggestions and expressions of unmet needs."

dissatisfied,' with my children's schools," 66.45% of Wellesley parents checked "very pleased," 31.05% checked "satisfied," and only 2.5% considered the schools "unsatisfactory." With 97.5% of the parents solidly behind them, school officials might be forgiven if they gave only glancing attention to the brickbats. But, to their credit, they viewed the complaints with determination, if not with alarm. "The real purpose of the poll," according to Assistant Superintendent Woodbury, "was to secure constructive suggestions and expressions of *unmet needs*. From this viewpoint, much was brought to light which must be studied and acted upon."

The questions

The construction of the poll was influenced by several factors:

1. Questions were kept brief. Most required a "yes," "no," or "degree," type of response.

2. Questions asked were basically those to which the school officials sincerely wanted reaction. Following most questions were several blank lines inviting comment or amplification.

3. A total of 14 questions—some with subdivisions—were asked.

4. Parents were requested to answer the questions in terms of their oldest child still in school. This was done to obtain a good distribution, and to avoid duplication and confusion by parents in answering and difficulty in interpreting responses by the tabulating staff.

5. Signing of the questionnaire was optional. It was felt that responses would be franker if signatures were not required.

The results

Seven "most urgent needs" emerged from poll responses. These seven items were those most frequently mentioned in the comments. These are also the areas about which parents seemed to have rather strong, definite feelings.

1. *Revision of elementary school report cards.* Many parents said the information provided was not specific, and that the cards were difficult to interpret. Additionally, parents felt they were given little information on the child's actual accomplishments or academic standing.

2. *More effective communication from school to parent.* Although the Wellesley school system places unusual stress on keeping parents informed of school activities, the parents said they would welcome even more details.

In particular they requested more information on the special services such as guidance, remedial reading and speech correction.

3. *Smoother transition between the various levels of the school system, particularly between the 6th and 7th grades, and 9th and 10th grades.* Both from the standpoint of social adjustment as well as academic adjustment, many parents were critical of these transition steps and urged better continuity and coordination of curriculum and special services.

4. *Added opportunities for parent-teacher contacts at the secondary school level.* Having had regularly scheduled conferences with teachers in the elementary schools,

7. My child has used the special services of the following—
☐ Remedial Reading ☐ Speech correction ☐ Guidance Activities and Services ☐ Other
We have been very ☐ pleased ☐ satisfied ☐ dissatisfied with this special help our child has been receiving.

Comment_____

8. From the point of view of their frequency and effectiveness, please rank the following items which are designed to provide you with information regarding the school, its activities and your child's progress—
E-Excellent G-Good F-Fair P-Poor Grade

Report Cards_____
News releases concerning schools in TOWNSMAN_____
YOUR SCHOOLS_____
Annual School Report_____
Scheduled Parent-Teacher Conferences_____
School Radio Broadcasts_____
P.T.A._____
Special school programs for parents_____
Others_____

Please explain why you marked any of the above with "F" or "P" and how you would suggest improving these items._____

9. I think the schools might consider the following in working to improve their instructional programs_____

_____

10. Any other constructive suggestions or comments will be greatly appreciated.

11. What is the one thing about the Wellesley schools which you *like* the best?
What is the one thing about the Wellesley school which you *dislike* most?

12. *NOTE:* Only parents of Junior and High School students are requested to answer the following.
Are you satisfied with the facilities, arrangements, schedule, cost, regulations, etc., of the school lunch program.

☐ Yes ☐ No ☐ Uncertain

Comment _____

13. As a parent I feel that the banking opportunity provided children at school should be—

☐ Continued ☐ Discontinued

Comment_____

14. Do you feel that the banking opportunity should start in grade 2?

☐ Yes ☐ No

Comment_____

We greatly appreciate your taking the time and effort to assist us by filling out this questionnaire.

(Not required)

Name _____

Address_____

many parents expressed a desire to have some type of similar contact during junior and senior high school. A considerable number of parents indicated that they had had difficulty in making contact with their children's teacher during the secondary school years.

5. *More interestingly vital P.T.A. meetings.* Many comments were made indicating that parents felt these meetings were "too social," and did not place sufficient emphasis on the real needs of the schools.

6. *Foreign languages.* Parents requested foreign language instruction in the elementary grades. Interestingly, 15.49% of the parents, in answering Question 6, labeled the foreign language program inadequate, while other subjects drew an "inadequate" response of only about 4%.

7. *Teaching of the gifted child.* A number of parents felt that the Wellesley instructional program was geared to the average child and that, although special provisions were made for the slow learner, the gifted child was not offered sufficient educational challenge.

Subject comments

A large percentage of the parents not only filled in the available blank lines with comments, but also took the time and trouble to express their opinions in detail on separate sheets of paper. In specific curriculum areas, certain attitudes were shared by a majority of the responding parents. Here are summaries of these attitudes.

Mathematics: Parents felt that greater stress should be placed on drill work, particularly in the 3rd and 4th grades. It was suggested that math instruction be made more functional; more opportunities should be provided for practical applications in the classroom. In addition it was apparent that parents felt math preparation in the upper grades was not adequate to meet Junior High School requirements. Significantly, answers to Question 6 indicated that only 26% of the parents considered the math program excellent while the science program was rated excellent by 43%; social studies, 42%; and English, 39%.

Science: Not surprisingly, most parents felt that greater stress should be placed on science in view of present demands. Suggestions were made that a science supervisor be appointed to coordinate and develop science instruction. Far too much emphasis, it was stated, is placed on non-physical sciences such as biology and geology, and far too little emphasis is placed on physics, electricity and chemistry. Strong suggestions were made that the public schools make better use of lay specialists in the community.

Reading: Dissatisfaction was expressed with the teaching of reading in the lower grades. More emphasis on phonetics was requested, summer reading lists were suggested, and more required reading and preparation of book reports were techniques the parents felt would also be helpful.

Language Arts: It was in regard to this area of study that parents were most outspoken and most critical. They felt strongly that their children lacked proficiency in three areas: writing, speaking and spelling. They blamed this on the instruction methods. They argued that basic drill work in grammer should begin in the very early grades; that English composition should be stressed at all levels; and that the teaching of correct speech and public speaking techniques should begin at the 4th grade level. Along with this attitude went the companion complaint that spelling was a lost art. Time and again, parents said that they felt that *every* written lesson—regardless of basic subject matter—should be considered a spelling and handwriting lesson as well. They asked school officials to avoid the extensive use of the true-false type of question, to provide more chance for actual composition and, thus, added opportunities to apply spelling, penmanship and grammer. Every effort should be made, parents said, to provide a greater opportunity for written work of all varieties.

Social Studies: Parents complained that the teaching of basic history and geography has been neglected. It was suggested that more field trips should be taken, to acquaint students with the rich historical heritage of the Boston area. Along the same lines, several parents felt that, in the light of today's rapidly shifting geo-political scene, every classroom, even kindergartens, should have a world globe.

Foreign Languages: Most parents felt that the earlier instruction in a foreign language is begun, the greater the benefit to the student. Some suggested that foreign language students be grouped according to ability, to enable the less gifted to proceed at a slower pace and still avoid the discouragement that might accompany comparison with more adept language students.

Other comments

Many parents took the opportunity offered by the poll to express themselves on a variety of topics not covered in the questionnaire. Some of these opinions appeared with such frequency that the tabulating staff listed them for official consideration. Here are a few of these sentiments:

"More male teachers are needed in the upper elementary grades."

"All teaching principals should be replaced by full-time supervising principals."

"Cooking and sewing classes seem to be more concerned with making fancy desserts and elaborate trimmings, than with the basic techniques."

"Using the school library as a study hall reduces its effectiveness as a library for students seeking reference material."

"The outstanding students are always selected for the special activities, and the less outgoing pupils are seldom given these opportunities which they most need."

"Teachers should be more readily available to students for after-school help."

Dade County, Fla.

Public Forums

■ To feel the pulse of parents in its district, the school board in Dade County, Fla., recently held a series of public forums.

Out of these seven meetings, attended by almost 2,000 people, came a series of changes that stiffened requirements in the local school system. (*See SM June 1958.*) Perhaps more importantly, however, the forums gave school officials a double-barreled opportunity to interpret the schools to the parents,

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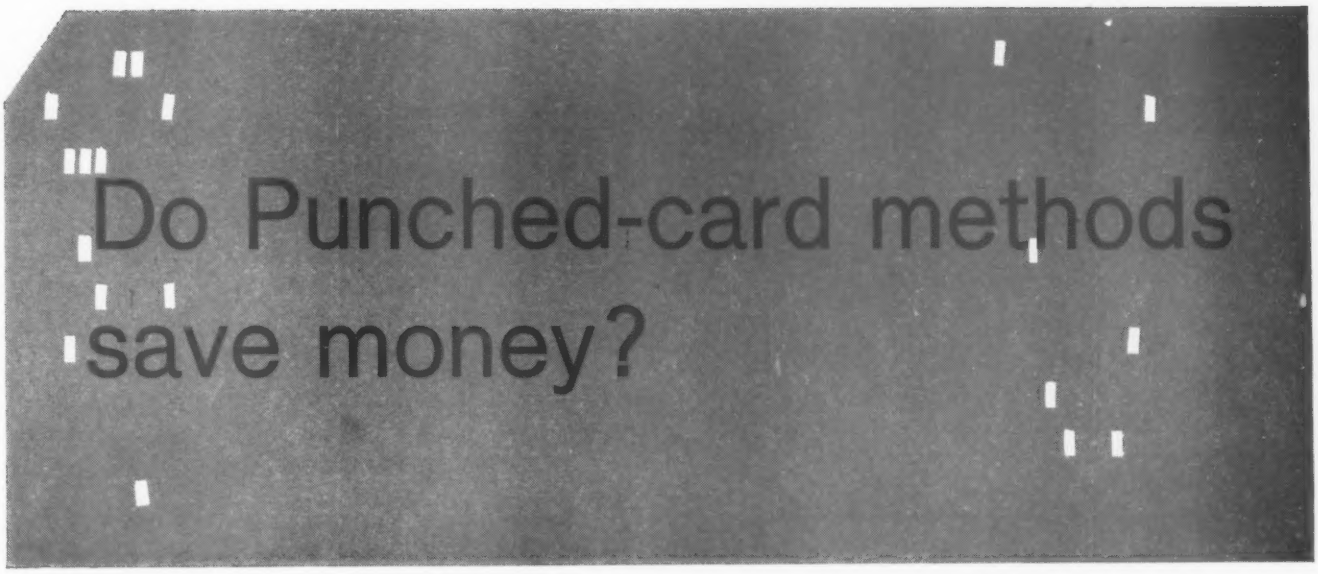


Yes! say the administrators in Jackson, Mich. But they also emphasize an even more important by-product — an improved educational program based on better educational research.

By RICHARD E. SPENCER
Supervisor of testing and research

■ ■ ■ About four years ago, the new superintendent of schools in Jackson, Mich., ordered a test scoring machine. This was the first in a long series of punched-card machines, of one kind or another, to be brought into our public school system.

I'll try to relate below *why* and *how* we went about building our system, and what it cost us and how much it saves. I'd like to emphasize at the beginning, however, that our savings—though they are real and consistent—are not the significant factors in our program. More importantly, we have improved the quality of instruction in Jackson—and therein lies our story.

Why Jackson installed machines

We had two main purposes in mind when we started to build up our punched-card installation:

1. Relieving teachers of burdensome routine tasks.
2. Collecting and analyzing data.

One of our earliest problems centered around the fact that we were entering upon a series of annexation and redistricting projects. We needed adequate census and population research studies. Punched-cards were used to obtain the data we needed for pupil forecasting.

With basic census information on punch cards, it became relatively easy to add additional pieces of information which opened up whole new areas for analysis. A glance at the chart on the next page will indicate, under "School Census and Child Accounting," how far we have been able to carry our work—much of which is an inexpensive by-product of the original census study itself.

Analysis of testing

Although pupil forecasting was the first punch card application used in Jackson, we didn't even have our own machines when it was begun. As information was collected by census enumerators, it was sent to the IBM service bureau to be punched into cards and then analyzed. The service bureau, incidentally, offers a good way for a school district to get its feet wet in punched cards methods without commitment or investment.

When our test scoring machine was delivered, we were able to get

started on the problem that most concerned us. Over a period of years, we had noticed that no real improvements had been made in our testing program. Test data was being collected but relatively little analytical information was available to the teacher. With the equipment in hand, we were able to enlarge our testing program about fourfold. Machine-scored tests were used from fourth grade up. A profile card was developed which contained the test scores for each individual. Using these cards, classroom means were obtained, as well as school and grade means in each subject area. New requests for information began to blossom when it became apparent that data could be produced by the machines in such superfluity. We had to establish an order of priority. This responsibility was given to our principals' organization and they determined that the primary aim of the installation would be for research and evaluation. Any other services that the installation could serve would be handled, if, and only if, there was time available.

At this point the principals determined to convert our recording and marking systems to IBM procedures. Typically, the junior college, high school, and elementary schools all wanted this done "right now." Unfortunately, we were only able to handle one at a time and, since the elementary schools were the largest single body to be dealt with, they received initial priority. We later discovered that the junior college, being small, could also be added at the same time.

The results of this effort have been most encouraging. For two years now elementary report cards and junior college report cards have been processed by our machines. Much has been gained. For example, the analysis of grading policies, retentions, and promotions, which had never been done before, could now be accomplished with ease. In addition, production of duplicate report cards for the principal and for other administrative purposes could be handled simultaneously with a printing of the actual report cards themselves. A great deal of analysis has been brought forth—analysis

How punched cards save money in Jackson

BUSINESS OFFICE FUNCTIONS

Payroll; deduction register writing checks
Quarterly Social Security reports incl. typing & computation
W 2's
Check signing & dating
Material Requisition

Salary analysis & personal information

SCHOOL CENSUS AND CHILD ACCOUNTING

Census enumeration
Census count
Kardex card preparation
Class lists
P.T.A. lists
Boy Scouts lists & counts
Redistricting information
Bus route information
Population flow study
Drop-out & left city analysis
Master, current student file

TESTING & GUIDANCE

Score 120,000 tests
Compute averages for ea. school Grade, Class in ea. area
Make class list of test results
Prepare duplicate test results for principals
Compute average by system
Analyze test results for remedial reading cases, potential special education pupils, and group screening, identification of the gifted child and other individual differences
Prepare lists of tests results for counselors, vocational guidance, etc.
Test research, analysis of curriculum and instructional program

ADULT EDUCATION

Master mailing List (8000)
Symphony Concert lists and file

PUPIL PERSONNEL RECORDS

Junior College report cards, class lists and addressing of report cards
Junior High School Registration

Marking of elementary report cards
Recording of marks in CA-39

RESEARCH

Collection of correlation and prediction data
Distribution of marks
Grouping research
Prediction of College entrance status

OLD TIME	$ OLD COST	NEW TIME	$ NEW COST
3.5 days 28 hrs. plus machine	$1223.04 per yr.	1.25 days 10 hrs.	$325.00 per yr.
5 wks. 200 hrs.			
8 wks. 320 hrs. per yr. at $1.68	$537.60	2 hrs. per yr.	$3.36
56 hrs. at $1.68	$94.08	6 hrs. per yr.	$10.08
260 hrs. plus machine at $1.68	$436.80	4.3 hrs.	$72.24
120 hrs.	$201.60	10 hrs. machine time	$67.20
		30 hrs. clerical time	
5 wks. 200 hrs.	$336.00	12 hrs.	$20.16
Same	Same	Same	Same
5 wks. 200 hrs.	$336.00	40 hrs.	$67.20
3 wks 120 hrs.	$201.60	8 hrs.	$13.44
never done before	3000 hrs. at $3.62 $1086.00	8 hrs.	$13.44
never done before	1000 hrs. at $1.68 $1680.00	8 hrs.	$13.44
never done before	1000 hrs. at $1.68 $1680.00	2 hrs.	$ 3.36
never done before	could not do	6 hrs.	$10.08
120 hrs.	$201.60	20 hrs.	$33.60
never done before	200 hrs. at $1.68 $336.00	12 hrs.	$20.16
never done before	200 hrs. at $1.68 $336.00	4 hrs.	$ 6.72
never done before	2080 hrs. at $1.68 $3494.40	1000 hrs.	$1680.00
4,000 hrs.	$14,480.00	240 hrs.	$403.20
500 hrs.	$1,810.00	200 hrs.	$336.00
		by products of lists	
1000 hrs.	$3,620.00	by products of lists	
100 hrs. never done before	$362.00	by products of lists	
		by products of lists	
never done before	3000 hrs. at $3.63 $10,890.00	100 hrs.	$168.00
never done before	1000 hrs. at.$3.63 $3,630.00	by products of lists	
partially done before	8000 hrs. at $6.00 $48,000.00	400 hrs.	$672.00
120 hrs. 3 wks.	$201.60	40 hrs.	$67.20
120 hrs. 3 wks.	$201.60	20 hrs.	$33.60
240 hrs. 6 wks.	$403.20	15 hrs.	$25.20
120 hrs. 3 wks.	$201.60	24 hrs. 3 days	$40.32
120 hrs. 3 wks.	$201.60	24 hrs. 3 days	$40.32
120 hrs. 3 wks.	$201.60	24 hrs. 3 days	$40.32
same	same	same	
500 days	$14,500	automatic	
never done before	1000 hrs. at $6.00 $6,000.00	automatic	
never done before	1000 hrs. at $3.63 $3630.00	16 hrs	$26.88
never done before	6000 hrs. at $6.00 $3600.00	40 hrs.	$67.20
subjective evaluations	100 hrs. at $6.00 600.00	6 hrs.	$10.08
	*$40,751.52		$ 4,289.80
			$12,000.00 IBM
	*Items in color not included in total		$16,289.80

aimed toward the marking philosophy of the school system and the marking philosophy of each individual teacher.

When the high school became interested in the report card system, we made an experimental run on one semester's high school report cards. We discovered, almost immediately, that there were certain discrepancies in the reporting philosophy and procedure used at the high school. Result: a report card committee has been established and has been working ever since to iron these problems out. The discrepancies would never have come to the surface but for punched card analysis.

Other applications

As we added to our machine equipment, other departments in the district began to file requests for machine service. We moved rapidly into such applications as payroll, inventory, and budget preparation—all for the business office. In addition, various mailing lists and envelope addressing chores were handled for the adult education department, PTA groups, Boy Scout groups, and other community services.

Business applications, such as payroll, provide considerable savings of cost and time, too *(see chart)*. While these save money, they do little to benefit the educational environment of the children in our public schools. So we are pressing hard at other educational applications.

For example, we have launched a project of identification of individual differences among pupils, and hope to alter our educational instruction and curriculum to serve these individual differences. Without punched card equipment, the amount of clerical and research work involved would have been prohibitive. At the same time, it is now possible for us to analyze all kinds of homogeneous grouping criteria and the effects upon the educational achievement of such grouping. It is possible to collect, at a moment's notice, the marks, test results, teacher opinions, and other variables on any individual or group of individuals enrolled in our schools. One relatively minor point in this grouping project has been an attempt to identify kindergarten age youngsters who could profit from advanced reading instruction during the kindergarten year. As I write this, I have lying on my desk a request for an analysis of our test profile cards to determine if the children selected for advanced reading placement in kindergarten can be selected by chronological age, mental age, I.Q., or some other criteria. Imagine how long it would take to find out this kind of information on our 1,300 kindergarten youngsters using manual methods?

Five major educational applications

I think I can best summarize our major uses of punched card equipment in educational areas with this breakdown:

1. We get efficient and adequate identification of all types of individual differences both in learning ability and achievement levels.
2. We get efficient and adequate analysis and study of educational programs in terms of what student changes occur in these various programs.
3. We get a better guidance, counseling and diagnostic service, based on individual need, since we identify personal and learning problems at the earliest moment, and continuously provide remedial and therapeutic situations for those identified.
4. Our educators are relieved from the necessity of spending countless hours in routine, clerical activity. Time heretofore spent in collecting data is now applied to the critical analysis of this information.
5. We are able to utilize research based on local situations as a basic tool in the revision of curriculum and course content, and the evaluation of the school program.

How much does it cost?

There can be no doubt but that punched-card accounting will save money. But it is also important to remember that the cost of punched-card equipment must be determined by how many procedures the equipment will be expected to take over. As a rule of thumb, I believe that an expenditure of $1.00 to $1.50 *per pupil head* is an approximate figure for an installation doing most of a district's accounting work. If a district is spending more than $2.00 per head per year, I would think it was probably over-spending. Thus, the size of the district is an important consideration and it is interesting to note that school districts with as few as 3,600 pupils are using punched-card equipment efficiently. As mentioned before, the use of a service bureau can be highly effective in establishing cost prior to commitment.

Still in the department of "advice," it is seldom rewarding for a district contemplating conversion to punched-card procedures to study samples such as forms and card layouts. They tend to confuse one and never truly reflect the overall potential in a machine installation. It is our experience, after talking to the many school officials who have visited us to personally observe our installation, that there is no substitute for watching a system in action. We welcome their visits, and I'm sure the same would be true of other school districts throughout the United States which have made the conversion to machines.

What equipment is needed

For an average school system of 15,000 pupils an IBM installation, handling most of the financial and pupil accounting and some research, could be composed more or less of:

1. *3 key punches*
2. *1 verifier*
3. *1 collator*
4. *1 interpreter*
5. *1 reproducer with mark sense*
6. *1 large tab or 2 small tabs*
7. *1 or 2 sorters*
8. *1 small computer*
9. *1 test scorer*

These estimates, of course, are only approximate. Final analysis is dependent upon state financial report requirements, local conditions and the number and type of applications processed. **End**

Panoramic "Plantation Exhibit" graphically teaches these Detroit school children the story of rubber. Prepared by the U. S. Rubber Co., the exhibit is just one of several teaching aids sponsored by the company. Each year the firm's public relations department fills some 2,600 requests for such materials.

Don't overlook those sponsored teaching aids

It's a buyer's market for educators today. Industry is flooding the schools with intelligently conceived, carefully prepared, and attractively packaged sponsored materials that fill real educational needs.

■ ■ ■ Last year hard-headed American businessmen offered $40 million worth of instructional aids to the schools—*free*. This year's figure promises to be even higher. While sponsored teaching materials are not new, both the quality and quantity of the current offerings are impressive.

Some 7,500 teaching aids are available, ranging from accident prevention to zoology. In between the A and the Z, an almost bewildering variety of subjects is covered.

What—if anything—do the schools stand to gain by using these aids? And, also, what is industry's stake in this program? Obviously the companies sponsoring such school programs are not motivated solely by altruism; they want—and receive—a substantial return on their investment. Just what is it that business is buying?

What are teaching aids?

Teaching aids may take any of a number of forms—booklets, texts, filmstrips, charts, posters, teachers' guides or handbooks. These materials are prepared by companies that are interested both in helping the schools and, at the same time, promoting their own interests.

General Electric, for example, publishes an "Adventures in Science" series, in which various scientific phenomena are presented in comic book form. "Inside the Atom," gives students the latest data on how atomic energy is applied in both war and peace.

The school service division of Westinghouse uses the same comic book approach to the study of atomic power and jet propulsion.

Among other teaching guides

available under the heading of atomic energy are "The Atom in Our Hands," prepared by the Union Carbide and Carbon Corp., and the Silver Burdett Co.'s "What Shall We Teach About Nuclear Fission in High School Chemistry?"

In *all* cases the teaching aid, no matter what its form, carries the identification of the sponsoring company. In *some* cases, further mention of the company or its product or services is made, but only if this is part and parcel of the educational theme—and not simply a tacked-on commercial plug.

How the school can benefit

Briefly, the special contribution made by sponsored material lies in the fact that it provides the teacher and the student with fresh, up-to-date information not otherwise easily available. Sponsored aids are not intended to supplant the textbook, but to supplement and enrich it.

The textbook is relatively inflexible. Two factors have made this inflexibility of prime concern to thinking educators.

One is that today even the best of textbooks may be outdated almost as soon as it is published. Rapid advancement in a variety of fields frequently leaves the expensive, elaborate text far behind the times.

The second factor is the broadening of the curriculum and the acceptance of a new educational philosophy. Not only is a wider range of subject taught but specific applications of each subject are made to real life situations. In attempting to present information in this manner the teacher is often faced with a lack of proper instructional materials.

These are the gaps that sponsored teaching aids can fill. These materials are less expensive to prepare than textbooks, simpler to revise and keep up-to-date, and are available on a wide variety of subjects. Because they are prepared by alert business organizations, most of which seek the guidance of professional educators, the materials are designed to fit into today's curriculum demands at a variety of age levels.

What business stands to gain

One of the leading educational consultant firms, Glick and Lorwin, Inc., of New York, has guided many of the country's top firms through the intricacies of preparing sponsored materials. Ira Glick, president, explains what business is after: "The businessman who invests in these educational materials is primarily motivated by a legitimate self-interest, for here is an ideal and unique method of creating awareness of his product and/or service among young people. His primary reason for launching a school program is neither philanthropic nor visionary; it is based on a practical, dollars-and-cents estimate of the new and growing importance of youth as a market for his product.

"There are 27 million teenagers in the country today. These young people have catholic tastes and a whopping total of $9 million to spend on their own purchases. Furthermore, beyond the handling of their own money, they exercise a tremendous influence on their families' purchases.

"It is this market that the businessman wants to reach. In sponsored materials he has a media that is more economical than most, one that pinpoints his audience, and, as a bonus, it is a program that the businessman can readily test and prove."

The companies that sponsor school programs naturally expect to have their name appear somewhere on the materials they offer. But, while references to or discussion of the company's product or service is acceptable if necessary from an educational standpoint, companies today steer clear of purely promotional blurbs. They know that schools will not—and, should not be expected to—accept heavily commercialized material.

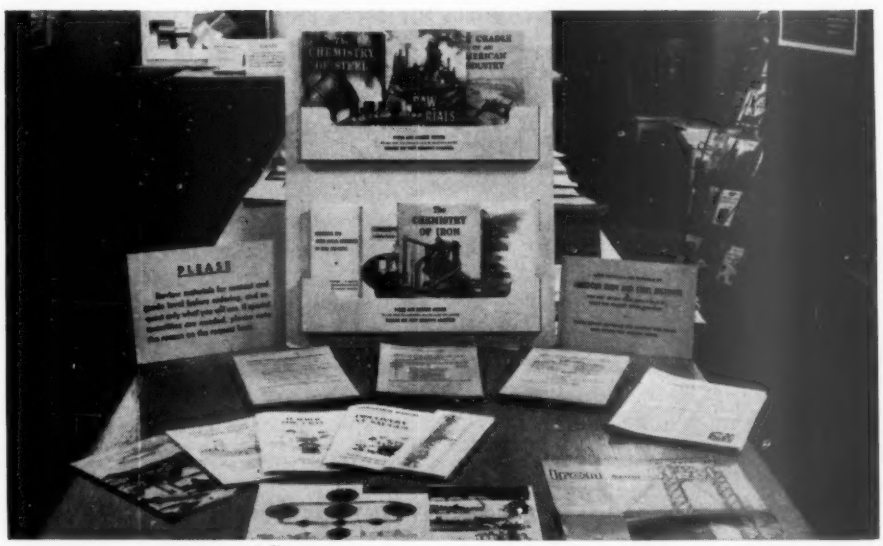
Schools can afford to be critical; they need not accept materials which do not conform to high standards. There is sufficient variety —even duplication—in sponsored aids, to enable educators to select the best in each field.

How sponsored aids began

Today's flood of sponsored materials started with a trickle. By the beginning of this century food and appliance companies offered instructional aids to the schools of use in home economics classes. Their goal was to teach "consumer education" to students who were to be tomorrow's housewives and thus the purchasing agents for the home.

By the mid-'30s the use of teaching aids had become so widespread that the University of Denver conducted a study which indicated that students whose teachers used sponsored supplementary materials earned higher grades than comparable students whose teachers did not use the aids.

But during the late-'30s trouble developed. Teaching aids had become so popular that dozens of companies, lacking knowledge or understanding of the problem, produced materials that the schools could not in good conscience, use.



Trade associations are a fertile source of material on their specific fields. Here is a sample of the teaching aids published by the American Iron and Steel Institute designed for science and social studies classes in junior and senior high schools.

These were the companies that had hopped aboard what they thought was a gravy train of free advertising. In some cases the material was so blatantly bald advertising that schools protested. Educators began to look upon all sponsored aids with suspicion. Some school districts prohibited the use of such aids completely.

But the interest value of sponsored materials—properly conceived and executed—prevailed. By the '40's the pendulum swung back —and sharply.

There were two major reasons for this change.

First, the depression years had slashed textbook budgets. Many districts were using texts long out of date. World War II had further postponed the revision of old texts or the publication of new ones. At the same time great advances and changes were occurring in many fields: science, technology, sociology, even geography. Change was almost an overnight event. To keep their teaching materials up to date educators turned again to business and industry for sorely needed, timely information.

Second, businessmen had taken a good long look at their school programs; and at the advantages they could offer. They took another look at the expanding teenage market. Where before, they had felt—some of them at least—that they were doing the school a favor—they now realized that the benefits were equal. To insure the acceptance and success of their programs they now looked eagerly for the professional advice they once had scorned. Today companies are anxious to offer good aids and to have them actually used in school classrooms. To insure this, most companies depend upon the advice of educational consultants. But whether they use an independent firm, or get their help directly from educators and school superintendents themselves, businessmen have grown up: they know now that sponsored aids must have real educational value.

The General Telephone Co. of Wisconsin supplied the St. John's Lutheran School, Random Lake, Wis., with telephone parts for students to assemble. After putting their own system together children understand how telephones work better than most adults.

What's available

Schools today have a multitude of sponsored materials from which to choose. Many companies prepare a single story in ways that are suitable for different grade levels. The General Telephone Co., for example, has produced a filmstrip entitled "The Marvel At Your Fingertips." This aid, which includes a teacher's manual, explains just how the telephone works and is keyed to junior high school classes. The same company also offers senior high schools a Teletrainer demonstration set, a communications equipment unit which graphically shows students how a telephone operates. This too, is accompanied by a teacher's manual.

Here are other examples of what's available in sponsored aids:

The American Iron & Steel Institute offers a series of filmstrips and manuals on such topics as "The Chemistry of Iron," "The Raw Materials of Steelmaking," and "Steel and the Nation."

The U. S. Rubber Co. has produced a filmstrip on rubber, tracing its production from tree to tire, and including information on synthetics.

The Blue Cross Commission offers a wide selection of manuals on everything from daily health care to information on health insurance. One aid made available for use in English, speech, and social studies classes, is a discussion kit. These materials encourage the use of group discussion as a problem-solving and learning technique. Three large charts illustrating the history of discussion and clarifying the difference between conversation, discussion and debate, are included.

How to get teaching aids

Any company that sponsors teaching aids is more than happy to send as many as are needed to the schools requesting them. That, after all, is what they're after: distribution and use.

Most companies, however, make their materials available on a "request only" basis. One simple (and central) way to find out who publishes what is to look through "Free and Inexpensive Learning Materials," published by the George Peabody College for Teachers, Nashville, Tenn. A new edition of this 264-page, $1.00 book appears each summer. It lists the newest aids available and culls out those that have been discontinued.

Furthermore, most companies send announcements to educational journals, to school boards and school superintendents, or forward samples of the aids themselves to individual schools with the invitation to write for additional copies.

The problem for educators is not how to get the material, but simply selecting the best of what's available. Generally there is a sponsored aid tailor-made to fit any educational requirement. **End**

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THOUGHT STARTERS

A monthly review of ideas, new products and helpful hints

Duplicate schools save money, time

Growing school districts—especially large ones—can save both money and time in substantial amounts if they will build duplicates of existing schools.

This is the theory of the Independent School District of Houston, Tex., which has retained architects to duplicate two existing schools in drafting plans for two new ones.

The district saves nearly half the architect fees. The customary 5% fee was cut to 2¾% because the architects were simply duplicating two schools they had built earlier. Since the structures cost about $2 million each, the saving in these fees alone was almost $90,000. Fees for supervising architects are also lowered—from 1% to ¾%—in projects like this, to save an additional $11,000.

Most important saving, perhaps, is time. Working from duplicate plans cuts at least four months from the time usually required to draft plans and call for bids. The four months is often long enough to allow opening the new school a semester ahead of schedule.

Off-key

A grade school music teacher in Syosset, N. Y. has admitted "an error in judgment" in including a Russian folk song in the repertoire of the Berry Hills school's glee club. The 110-voice group has been preparing a program of patriotic songs from the United States, France, England and Russia. The Russian song was stricken from the program and, according to Frank Manarel, acting district superintendent, the patriotism of the music teacher was vindicated.

Fall River students gain by scholarships

Twenty-four Fall River, Mass., high school seniors will be helped through college as a result of scholarship grants made by the Citizen Scholarship Foundation of that city.

The foundation, *(SM, March, 1958)*, was formed by a group of Fall River residents who believe that citizens can raise enough money to guarantee that all qualified area students get a chance to attend college.

The scholarships ranged from $50 to $300 each. The money was raised through $1 annual membership fees paid by 4,000 people. The foundation also conducted a one-day drive to raise additional funds.

Reading levels to replace grades

Grades one through six will be abolished in Kentucky's Christian County schools this fall and replaced by a system that allows a child to advance in accordance with his reading ability.

The decision to introduce the system followed a successful test of the idea over a two-year period in "a few" first and second grade classes.

Mrs. Elizabeth Wade, county supervisor of instruction, said the system will enable youngsters to advance at their own speed. Boys and girls who are slow in maturing won't be pushed too fast or failed as a result, and gifted pupils won't be held back.

The reading level plan, as it's called, divides students into two groups—primary and intermediate—separated by a transitional class of a year's duration which will emphasize language arts. The primary group is equivalent to grades one through three, and the intermediate group grades four through six.

Since grades are being abolished, youngsters will be referred to as first-year students, second-year students, etc. Report cards will simply bear the name of the reading book to which the student has progressed.

Midwest schools lack languages

North Dakota, South Dakota, Iowa and Nebraska constitute the region of least opportunity in the United States for learning another language, a University of Iowa publication revealed recently.

In North Dakota only 4.4% of the public high schools offer modern foreign languages.

Across the border in South Dakota the figure rises to 7.6%. It rises still farther in Iowa, to 8.3%, and finally reaches a "peak" of 9.9% in Nebraska.

By comparison, in four Eastern states, Connecticut, Maine, New Jersey and Rhode Island, every public high school (100%) offers at least one modern foreign language.

It was maintained that this disparity cannot be attributed simply to geographical or intellectual isolation, even though most of the states above the 75% figure are on the east and west coasts. The large number of small high schools was blamed for the lack of language offerings. Consolidation of school districts it was felt, would facilitate their inclusion in the curriculum.

Indecision costs

The Troy, Mich., Consolidated School District lost its superintendent of 10 years' standing recently because of the indecisiveness of its school board. The board had offered Superintendent Stuart Baker a three-year contract which he accepted.

Three weeks later the members rescinded their action and voted to offer Baker a contract for just one year. Baker, who has been a superintendent in the area for 29 years, rejected the new offer and submitted his resignation. He had earlier indicated his interest in serving out the three-year term and then ending his long supervisory career.

Massachusetts school to oust all loafers

Any Lancaster, Mass., student over the age of 16 who is adjudged by his teachers to be either lazy or indifferent is subject to immediate suspension or outright dismissal.

The Lancaster School Committee adopted this policy in an effort to weed out students whose conduct demoralizes others and to force the student and his parents to share the responsibility for the student's education.

The new rule is not aimed at troublemakers or the retarded, explains

Superintendent George A. MacArthur.

"This is an attempt to reach the loafers, the seat warmers, the indifferent. This is not an attempt to punish; it is an attempt to awaken a small group of students . . . and impress upon them that they must either buckle down or get out."

This is how the program works.

Lagging students are counseled by their teachers, guidance people and the principal. If that fails, the student's case is presented to the biweekly faculty meetings for review. If the faculty feels the student has not progressed, he is placed on 30 days probation and given more aid and counseling and his parents are requested to visit the school for a conference.

If, at the end of 30 days, the student makes no appreciable improvement, he is suspended with the recommendation that he be expelled altogether. Final decision rests with the school committee. If he is expelled, the school will try to find him suitable employment. If it cannot, then the responsibility is shifted directly to the parents.

"We must enforce the fact," says MacArthur, "that schools are not merely a place for children to meet socially and to keep warm. The people of this country still believe in education for everyone who wants it. But youngsters over 16 who have no interest in their studies, and whose presence in the classroom works to the detriment of other students, should be made to leave."

Residents oblivious to board problems

Too many people know too little about their schools. This was the major conclusion drawn from a poll conducted by the Community Opinion Survey Committee in Culver City, Calif.

Approximately 40% of the city's residents are unaware that their board of education has *any* local educational problems, the survey disclosed.

Results derived from 500 questionnaires filled out by members of civic and social groups, showed that opinions as to the effectiveness of Culver City teachers and their methods vary widely.

About 35% called the teaching excellent, 33% said it could be improved, 30% thought that it was adequate, and 2% found it unsatisfactory. A bond issue which would give the Culver City Unified School District only the most necessary and essential buildings, facilities and improvements was favored by just 44%.

On the basis of its findings, the committee recommended that the board of education institute an active public relations program under a public information specialist as soon as possible.

Industry aids science education

In Lexington, Mass., education and industry have combined forces to expand the instruction of science for young students. Arthur D. Little, Inc. is supporting a plan originated by John Blackhall Smith, superintendent of Lexington's schools.

The plan provides for science-teaching specialists to assist Lexington's sixth grade teachers in the development of experiments and demonstrations for their science programs. It is hoped that this system will indicate to elementary school teachers the many devices available for the presentation of science to their students.

Under the program, two graduates in the same scientific field receive three-year appointments for one high school teaching position. Each teaches one semester, alternating with his partner. During the rest of the year, he works at ADL where he acquires scientific experience, and associates with outstanding practicing scientists.

This method of instruction provides an unusual opportunity for both teachers and pupils to become familiar with the latest techniques and methods in the scientific field.

Lexington school officials, in a very favorable reaction to the program, report that their sixth grade students are expressing a greater interest in science and are taking the initiative in conducting new projects and experiments.

Relative Pay

A newly appointed principal in Camden, N. J., is earning a janitor's pay. The Camden School Board has hired Y. David Plutnik as principal for $6,500 per year. At the same time it raised the salary of Chief Janitor John Brunner $500 a year to $6,500. Brunner is the brother of Camden Mayor George E. Brunner.

Advice to new school board members

The following was prepared by W. H. Ferry, vice president of the Fund for the Republic, upon retiring from the school board in his New York community. It's title: "25 Suggestions, Observations, Bromides, and Apercûs for the New School Board Member."

1. Read.
2. Expect to be called a neophyte for several months. You will find this statement dull, and you will find exasperating the smirk that accompanies it.
3. Whenever you feel a speech on educational policy coming on, pause and reflect that your own education is far from complete.
4. Read.
5. If the managers aren't managing the schools the cure is to fire them, not to do it yourself.
6. Don't call newcomers to the board neophytes.
7. You were elected to think, not to run errands.
8. Never worry about leaky toilets, grass seed, or repairs to the roof. Try never even to talk about such topics.
9. Read.
10. You can't go wrong if you vote for higher teaching salaries and more books for the library, and against varsity athletics and driver education.
11. Try to find out how the curriculum is made and changed. Don't be discouraged because no one ever has.
12. Tell parents that the Complaint Box is in the principal's office.
13. Public relations is a life adjustment program engaged in by adults.
14. While away the arid moments at board meetings by reflecting on the question, "What am I doing here?"
15. Read.
16. If you ever feel that your job on the board is a thankless one, resign.
17. As public confidence grows in psychological tests, the confidence of psychologists wanes. Acute skepticism is the proper posture.
18. No one knows what the sentiment of the community is, though many will tell you.
19. Public interest in the budget and public interest in education are seldom the same thing.
20. The hardest thing to remember is what education is.
21. Cliches and loud voices poison discussion.
22. It is as important to demand a great deal of teachers as to pay them well.
23. An egghead is an educated person.
24. Public education has many afflictions but none so great as sentimentality.
25. Read.

Danger from planes has school officials up in air

Charges that low-flying planes are endangering the lives of 2,000 junior high school students in Santa Monica, Calif., have been made by Cecil Zaun, safety supervisor of the Los Angeles schools. Airport officials have promised to look for ways to change an airport-approach flight pattern that brings more than 100 planes daily within 200 feet of the school.

Involved is the Webster Junior High School, located less than a mile east of Santa Monica Airport.

A likely solution to the problem is that the flight pattern will be changed slightly for smaller craft so that they will not fly over the school. Larger planes will continue the present approach to avoid danger from special maneuvering.

Said the *Santa Monica Evening Outlook* editorially: ". . . it would take only one engine failure or one miscalculation to cause a tragedy. . . . It is heartening to know that [the airport's] director will do everything possible . . . to minimize the hazards to nearby schools. . . ."

Taste test tells tale on school ice cream

One hot evening last month the Glen Cove, N.Y. school board found a most desirable method for awarding a contract.

The board received almost identical bids from two competing ice cream suppliers to provide pops for the school lunch program. The bids were so close that it was obvious that the decision must be a matter of taste.

Samples of the competing products were passed to the board members for their opinion. After a short period of quiet—and tasty—contemplation, the majority decided that Brand A was slightly better than its competitor.

What to do AFTER a fire

It's just as important that you know what steps to take immediately after fire strikes as it is to carry fire insurance. Here are the rules that assure prompt and full adjustment.

■ ■ ■ It is hard to find anyone opposed to the idea of insuring a school against fire. But, surprisingly enough, few schoolmen want to concern themselves with what to do *after* a fire occurs. This is a dangerous attitude. Actually, many of the benefits of fire insurance are irrevocably lost because schoolmen fail to comply with insurance policy provisions which are mandatory on the policy holder.

Write right away

The first mandate, of course, is to notify the insurance company *in writing* immediately. Simultaneously, however, the insured is also required to protect the damaged property from further damage.

The burden for this protection is clearly established in every standard policy. It demands more than perfunctory protection. It expects the insured to provide temporary coverings if roof or wall areas have been destroyed. It assumes that water-soaked areas will be dried out. It further requires that the property will be protected against vandals or thieves.

Protect damaged areas

Obviously, protective action for the damaged property is going to cost money—and the insurance company expects to pay for this protection as a part of the total damages. For example, a school on Long Island, in New York state, suffered a gutting fire last spring. The oldest section of the school was burned out, and the new addition had considerable water and smoke damage. The loss ran about $500,000. It is interesting to note that almost $4,500 was expended by the school district—and included in their claim—in temporary repair activity. The major part of this cost was for a temporary fence erected around the damaged part of the school. The fence was regarded as necessary to protect against vandalism and to protect the children against injury. In the other building, temporary construction was provided to protect against further damage to interior plastering, floors and other structural elements.

Don't destroy evidence!

Don't disturb the ruins

Still another mandate of every insurance policy is that any evidence of the source of the fire or damage must not be disturbed until the insurance company's representative has been able to inspect the damage. For example, in New Jersey, a dramatic fire, which generated a tremendous amount of smoke—and fortunately relatively little structural damage—was found to be caused by a charcoal pot left smouldering and unattended by roof repairmen. The fire damage amounted to approximately $10,000, with only one school room severely damaged. In this instance, the charcoal pot was a major piece of evidence. Its loss, and the relationship it bore to the fire, could not be ignored.

It is important to remember, however, that while preservation of evidence is expected, it is not acceptable as a reason for not protecting property against further damage. Protection comes first.

Proof of loss

It is astonishing how few schools, after a fire, are able to adequately reconstruct an inventory of what was lost or damaged. Yet this is still another responsibility of the insured that is common to all insurance policies. In fact, the policy usually reads that an inventory of lost and damaged equipment must be rendered *immediately*.

In a well-run school system, a completely current list of contents for every school building is always available. This is not only needed to show proof of loss. It is indispensable in any effort to restore order as quickly as possible—the prime target when the school has been disrupted in the middle of the school term.

Too often, when a school has been damaged but not destroyed, the administration is paralyzed into inaction by the apparent hopelessness of the situation. Important time is lost. After measures for protection of property have been established, the work of separating damaged and undamaged material should com-

mence promptly. This is a point at which an inventory will assist greatly.

In making any estimate of equipment loss, considerable attention should be given to changes in value of equipment since the date of the original purchase. If a proper inventory has been made before the loss, this aspect of the work will be reduced to a tabulation of destroyed and damaged material. If no such accurate inventory is available, the problem is immense and often delays reopening. If you are unsure as to the adequacy of your present inventory record, it is wise to check with your school district's insurance advisor at once. He may very well point out deficiencies in what you may have considered a perfectly satisfactory inventory. Remember, it is not what satisfies you in the way of a record that counts. You must satisfy the insurance company.

Incidentally, the insurance company will expect you to repair damaged items if they are reparable, rather than claim them as a total loss. Also, particular care is required in the process of separating the damaged and undamaged property. Value of damage to the structure is best determined through cooperation of contractors and builders. A key factor in this valuation is whether or not your local building code will make it possible to rebuild a structure identical to the original. Very often, when older buildings are damaged, the school district finds that reconstruction is blocked by more recent building codes which have been imposed since the original structure was built.

Smoke damage and clean up

Where damage is only partial, with more soil and smoke than anything else, special cleaning services can be of value. One of the items listed in the estimate of loss for the Long Island school mentioned earlier, was an item of $4,100 for labor for emergency cleaning. The sum was used in paying the regular school maintenance staff for overtime in removing debris and clearing the entry to the school. The men also assisted in erecting the temporary fence around the damaged structure.

Smoke damage must also be considered. One consequence of fire which can cause as much trouble as actual physical damage is the lingering odor of smoke and moisture which makes the place uninhabitable. The odor will collect on surfaces and in textile fibers, resisting ordinary attempts such as washing and ventilating to remove it. Often, in the event of an intense but highly localized fire, the odor may penetrate far more excessive areas in the building than the fire, giving the impression of far greater damage than actually occurred. A highly specialized problem, this odor removing has been recognized by the insurance companies as a basic part of fire loss—and smoke odor damage claims have been accepted on the same basis as damage due to other causes. Fortunately, smoke odor and the other odors accompanying a fire can rapidly be removed by such experts as Airkem Smoke Odor Service.

For example, in the New Jersey school's fire, dense smoke filled the school during the noon recess for lunch. It was anticipated that because of the strong smoke saturation the school would be closed for a week. However, the Airkem smoke-odor-removing team made its applications during the night and early morning hours, and the school was back in session the next morning. The cost of this entire procedure, in a three story brick building, was only $437.00. The cost of this type of rehabilitation is covered by the insurance company.

Get yourself desmoked

Adjusting the loss

At this point, it might be well to examine the role of the insurance adjuster. He is generally a representative of the insurance company. It is his job to examine the loss and reach an amicable "adjustment" between the insurance company and the insured. Rarely is there a major disagreement between the person making the claim and the adjuster since adjusters are trained to examine the policy, determine the extent of coverage and translate this coverage promptly into dollars and cents for the insured.

In those cases where the school administration does not find the figures set by the adjuster to be suitable, independent consultants are available to help settle a claim.

Adjusters, incidentally, can be of several types:

1. An employee of one of the three national adjustment bureaus.
2. An independent adjuster.
3. A staff adjuster.
4. A public adjuster.

They are all, except for the public adjuster, similar in function: they represent the insurance company to the insured. In the case of the public adjuster, however, we have a man who represents the public rather than the insurance company. A public adjuster may solicit the opportunity to represent the school administration's interest in preparing the claim to the insurance company. The reason behind their existence is that they may be able to obtain a more favorable settlement than the insured could alone, and their fee is usually a percentage of the final settlement.

Return to normal

In general, difficulty in an adjustment should not be anticipated. It seldom happens. When it does, it is usually a direct result of a school district's failure to comply with the reasonable and clearly stated responsibilities of its insurance policies. **End**

"Today I started school..."

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Jefferson County, Ky., has been using closed-circuit television for a year. In this article the superintendent tells . . .

HOW THEY SCHEDULED
WHAT EQUIPMENT THEY NEEDED
HOW MUCH THEY SPENT

CLOSED-CIRCUIT TV

By RICHARD VANHOOSE
Superintendent, Jefferson County, Ky.

■ ■ ■ In February, 1957, our school board decided to go ahead with an experiment in teaching with closed-circuit television. In order to assure controlled conditions, we decided to institute the experiment in just three schools, and to confine it to grades three, four, five and six.

A six week workshop was scheduled for the late summer, to prepare our group for the TV experiment. During this period, objectives were established, subject areas defined and methods of teaching studied.

When school opened last September, we put the following plan, produced by the workshop, into action.

We broke the student body in the affected grades into two groups. One-half of the pupils were assigned to basic subjects for three hours each day, the other half to special subjects (*see chart page 51*).

Basic subject teachers taught two groups of 25 students each, one in the morning, another in the afternoon. For the special subjects, the medium of closed-circuit television was utilized as a teaching aid.

The workshop group had determined that social studies, science, Spanish, news and a limited number of other special topics would make use of television. In all cases but one, social studies, the courses were centered primarily around the TV program. For social studies the camera served only to provide resource material on a large scale.

The special subject class periods were approximately 40 minutes each. They were held in four instruction areas: regular classrooms, a resource room, a creative arts room and a physical education room. A teacher and a teacher's aide worked in each area with a group of 80 to 120 students. The resource room was the one in which televised programs were most frequently seen, and where all information of a resource nature was accumulated. The period pupils spent in the resource area was not wholly devoted to television. Actually, the television-teaching time has been limited to a maximum of 70 minutes a day.

At the time we were holding the workshop, we were also engaged

with the problems of procuring the required electronic equipment for our television teaching experiment. These included space for a TV teaching studio and a control room, and facilities for connecting the three schools involved in the experiment. In addition, there was the problem of obtaining an operating technician. For much of our help we turned to our local broadcasting station, WAVE-TV. John Norton Stahen, manager, provided expert technical assistance. Wilbur Hudson, chief engineer, and his staff, provided the actual know-how for planning and installing our TV teaching system. They are also helping us with our operational and maintenance programs.

Equipment Selection

Assistance from a broadcasting station is the practical approach to the educator's problem of selecting TV equipment. Since the school organization had no background in electronics, this practical approach helped immeasurably. Mr. Hudson laid down certain basic specifications for our educational TV equipment. He said that stability and reliability of operation are paramount. His main idea was to procure the best equipment available, requiring a minimum of technical supervision to maintain satisfactory operation.

He advised that we get two TV cameras in order to make a smooth presentation with close-ups of charts, models and demonstrations, and wide-angle shots of the entire teaching area.

Next problem was the type of cameras. We chose vidicon, rather than image orthicon, because of the economy they offered.

Our engineer-consultant suggested a combination of cameras consisting of one remotely controlled vidicon without viewfinder and one vidicon with viewfinder. This combination provides the facility of two types of operation. One type, which we are using now, uses only one person to control both cameras and all other equipment such as audio, TV switching, etc. The other type would permit us to use an additional man at the viewfinder camera for a more elaborate production.

Converting classrooms

For our educational TV teaching studio, we converted a regular 23 by 33 foot classroom. This gives sufficient space for cameras, TV teachers, furniture, background and chairs for pupils or visitors.

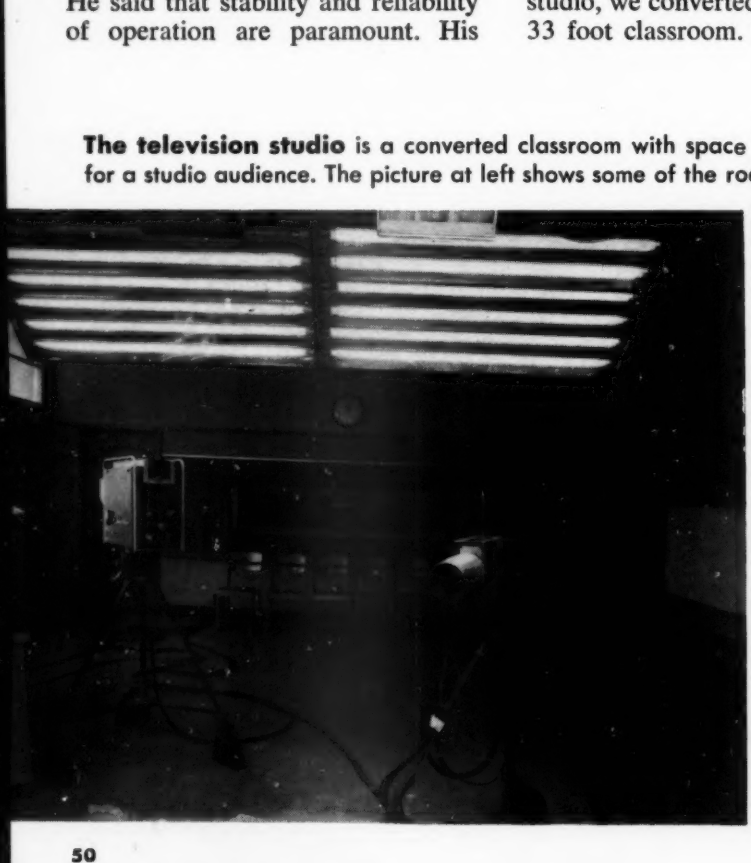
Modifications were slight. We installed an overhead lighting system, made up of angle iron and pipe, suspended from our 11-foot ceiling. At one end of the room, we installed a 12-foot window about 18 inches wide, for viewing from our room.

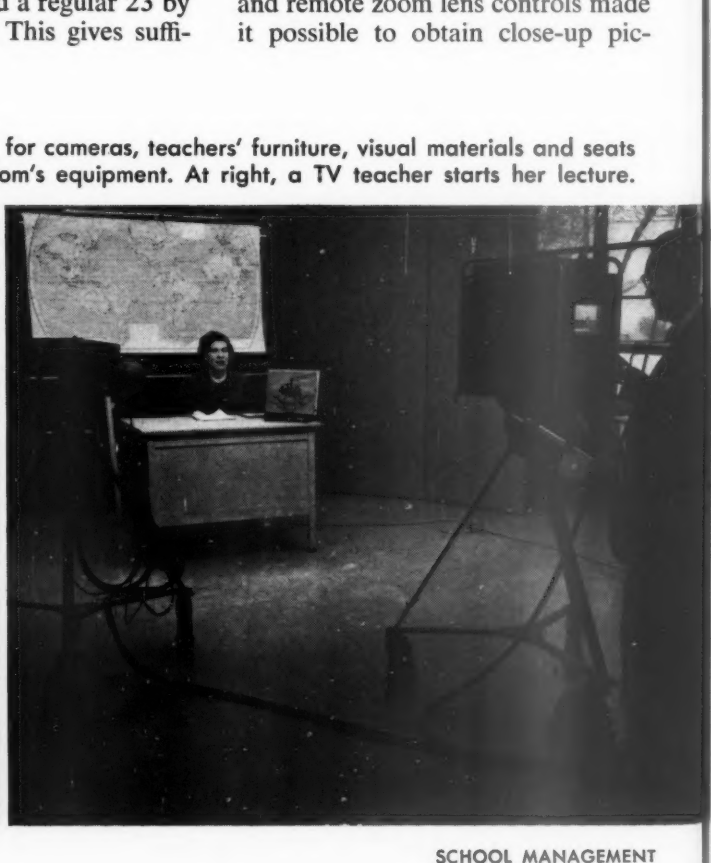
The TV control room was formerly a closet behind the converted classroom. Now it contains the operating desk and all equipment except the cameras. From here our TV technician controls the picture, the lights, the sound and our complete TV teaching presentation.

The equipment at the control desk includes two master monitors which show pictures from each of the two cameras. A video switcher permits the technician to choose the picture to be sent to the classrooms. An audio consolette provides control of the sound accompanying the picture. A monitor loudspeaker is built into the lower part of the desk.

Remote vidicon controls allow the technicians to adjust the cameras for best operation. Remote pan and tilt, and remote zoom lens controls made it possible to obtain close-up pic-

The television studio is a converted classroom with space for cameras, teachers' furniture, visual materials and seats for a studio audience. The picture at left shows some of the room's equipment. At right, a TV teacher starts her lecture.





approach to the problem of selecting equipment."

tures of small objects, cards and demonstrations.

In the control room are two 84-inch racks of operating equipment. One rack contains: power supply, distribution amplifier, output amplifier, deflection chassis, power supply. The other rack holds: sync generator, power supply.

In addition there is a rack of microwave equipment installed by the local telephone company, for distributing the TV picture and sound to our other two schools.

Studio equipment

The TV equipment in the teaching studio consists of the following: a TK-21 vidicon camera equipped with remote control pan and tilt mechanism, and a TK-15 vidicon camera with viewfinder equipped with three lenses: 13mm, 25mm and 50 mm. (There is space on the turret for a fourth lens.) Both cameras are supplied with 50 feet of cable and remote control panels. We mounted our cameras on tripod-dollies designed and built by WAVE-TV engineers. Studio equipment also includes two 21-inch monitors—one for the TV teachers to watch, the other for the technician (and audience). Our equipment, supplied by RCA, was chosen by experts in this field—a prerequisite for a good set-up.

Studio furnishings

For a background, we have constructed a series of six celotex panels, each three-by-eight-feet, which are hinged together. Thus they can be spread out in a straight line or arranged in a semicircular fashion, to suit the needs of the TV teacher. These panels are painted in a medium shade of green which presents a neutral background on the TV screen.

For the use of the TV teacher, we have several pieces of studio furniture. A desk and chair, and a demonstration table serve almost all teaching presentations. In addition, there is a floorstand easel for large charts, and another easel containing maps. These easels are pushed into position as required. All these fur-

HOW LOUISVILLE SCHEDULES FOR TV

Class Periods	Grade Divisions															
	3A	3B	4A	4B	5A	5B	5C	6A	6B	3C	3D	4C	4D	5D	5E	6C	6D
8:30 9:15	Classroom 25 Students	Classroom 25	Classroom 22	Classroom 22	Classroom 22	Classroom 22	Classroom 22	Classroom 22	Classroom 22	Resource Room 98 Students				C.A. 46		P.E. 44	
9:15 9:55										P.E. 52		C.A. 46		Resource Room 90			
9:55 10:35										Resource Room 98				P.E. 46		C.A. 44	
10:35 11:15										C.A. 52		P.E. 46		Resource Room 90			
11:15 12:00		Resource Rm. 94 Students			P.E. 66		C.A. 44			LUNCH 188							
12:00 12:45		LUNCH 204								Classroom 26 Students	Classroom 26	Classroom 23	Classroom 23	Classroom 23	Classroom 23	Classroom 22	Classroom 22
12:45 1:25		P.E. 50	C.A. 44		Resource Room 110												
1:25 2:05		Resource Rm. 94			C.A. 44		P.E. 66										
2:05 2:45		C.A. 50	P.E. 44		Resource Room 110												

nishings are painted in a light grey which shows up well on TV.

For use on the desk, we have a small table top easel. This is used by TV teachers to hold small cards about nine-by-12-inches. These cards contain the subject, title and our identification. They are also used for photographs, prints and pictures from magazines used as reference or source material. The automatic camera zoom lens focuses down on these cards to produce an enlargement that fills the 21-inch viewing screen.

Production

We have a few other items to assist in preparing effective presentation. These include a single bar chime with hammer, and a portable phonograph which is very helpful for language and music lessons. For audio visual slide films and movies, we have a 35mm and a 16mm projector.

These projectors are directed by the TV teacher into a special shadow box. This was constructed by our people at the school, and it is merely a wooden box about 18 by 18-inches and four feet long, with openings at both ends and a ground-glass screen in the center. The projector focuses on the screen from one end of the box, while the TV camera focuses on the screen from the other. Thus the pictures are translated into TV images and distributed to the classrooms. By this means, the TV teachers can integrate slides and movie film with their presentations.

Each TV subject usually opens with the camera focused on our identification card. This reveals our official name (JCEL), and shows a drawing created by our teachers to symbolize the TV teaching experiment. Next the teacher places a card on the easel, identifying her subject and giving her name. This may be accompanied by the teacher's sounding the chime and pleasantly introducing herself with familiar words such as "Good morning boys and girls . . ." Or in the case of the Spanish class there may be the playing of a record on the portable player while the teacher and students sing in unison an opening chorus in Spanish. For this purpose, the teacher points to the words of the chorus on a large chart, which also shows the music. From this, the Spanish teacher often shifts to a close-up of two character dolls which serve as introductory objects for her subject.

Costs of installation

Our investment in TV equipment is $25,000. This is modest when

***Students in studio** aid TV language teacher by participating on program, giving reactions to work. From their reactions teacher can judge general effectiveness of her program.*

of education as well as the level of the learning process."

one considers the quality and quantity we have procured. (This figure also includes 15 21-inch RCA monitors for use in classrooms.) We believe that obtaining high quality equipment is essential to good operation, and that it would be poor economy to save money at the eventual expense of breakdown in operation. Incidentally, this figure also includes the lighting arrangement and test instruments for servicing our TV equipment.

Another item is our modification cost. We converted a classroom and a storage room into studio and control rooms. We also installed 85-foot poles (produced by the local electric utility company at cost) at each of the three schools, for our microwave distribution system. And we built huts to support microwave antenna and to shelter equipment at the base of the poles. Total cost: $4,000.

Apparent advantages

Although all the advantages of our TV-teaching program have not been fully analyzed, here are some which have become apparent:

1. It eliminated some of the need for additional construction by increasing the capacity of present buildings.
2. It reduced the number of pupils in the regular teacher's group.
3. The program freed the regular classroom teacher from routine interruptions, such as preparation for visual education, lunch, physical education, music and other activities, thus enabling the teacher to do a more effective job of instruction in the basic skills.
4. It provided a better quality of instruction, because teachers specially trained to teach in the special areas such as music, art, dramatics, science and physical education, are now able to reach more children more often.
5. The program relieved regular teachers of many time consuming, non-teaching duties, thus providing more time for individual pupil attention.
6. It provided for fuller utilization of large areas presently available in the schools.
7. It made instructional supplies and equipment potentially more meaningful and perhaps more economical.
8. Less expensive furniture was required.
9. The program made possible financial savings or better teacher salaries and more school services.
10. It enhanced the importance and need of a good teacher by requiring skilled teachers.
11. It provided in-service training possibilities for all employees.
12. Television gave every child a front row seat, and it commanded attention in that TV presentation talks directly to the viewer.
13. It overcame a lack of time and space for visual aides.
14. Television helped get across many concepts better, with the aid of motion pictures.
15. The medium brought to students unusual things that cannot be taken to every classroom; such as precision measuring instruments, certain animals, relics, etc.
16. It brought the expert into the classroom.
17. Television teaching economized the time of the pupils by presenting things that adapt themselves to audio-visual learning. This is much faster than the reading process. At the same time, it stimulates interest to the point where further study in the form of reading takes place in order to learn about other aspects of the subject.

In addition, it appears to have raised the quality of education, as well as the level of the learning process.

Teacher reaction

"It is so interesting" reports Mrs. Jesse McGlon, fourth and fifth grade science teacher, "that I will work long hours at night, after the family has gone to bed. This I could not do if I were grading papers—but TV teaching is so wonderfully effective that I am truly excited about it.

"The time we spend before the TV cameras (20 to 30 minutes) passes so quickly, we must use it to utmost advantage. Therefore, we take more than usual pains in lesson preparation. We spend an average of eight hours preparing for one lecture. I collect film strips, exhibits from museums, make charts and get all sorts of visuals together."

"It's not only fascinating to the teacher," according to Miss Wilma Howard, TV teacher in social science, "but it's rewarding in pupil response. We are getting through to students in a way we never did before. The youngsters are listening and responding. This we know because of the specimens—animals, birds and other offerings—being brought in constantly by the many interested students."

New teaching routine

In the words of Television Director Kenneth Lam, "We knew television could be employed to teach effectively, but we wanted to do more. We wanted to reorganize. We wanted to use television to lighten all teacher work loads, as well as improve the over-all level of instruction."

Under the program, teachers in regular classrooms teaching basic subjects by conventional methods are freed from administrative duties, such as record keeping, and are protected from interruptions. Non-teaching duties are handled by teacher-aides, trained persons who deal with the non-teaching aspects of classroom routine. Also, with the use of TV the size of the basic class has been reduced from 35 to 25.

Television is used to complement existing teaching methods. Its chief importance is that it makes possible redeployent of teachers, using them in such a way that the greatest benefit will result from their professional training. **End**

continued from page 26

hours is necessary? Don't some educators feel it encroaches on academic time?

PRUDDEN: We who are 40 years or older remember the setting-up exercises that happened before each class. Somebody used to open the window, everybody would face the window, everybody would breathe noisily in and exhale. Then they'd all face front. Hands on hips—place. Then they would run in place for maybe thirty-six counts. Then they would do deep knee bends. And then they would do floor touches and then they would wave their arms around. This took three minutes. And then they would sit down. This happened before each class. Well, we put that back in the Greenacres elementary school and in two months the youngsters had their physical failure rate brought to below the European failure rate. Two months! Of course, we sold it to the teachers by telling them if they would do these exercises with the kids, they would lose an inch off their waists. And when they did, they doubled the time for exercise and they found out something interesting. They no longer had to send youngsters to the office for behavior problems in class and they learned more though they had less time for studies. I don't call that competing for academic time.

Q: Greenacres is an elementary school. How about in high school? Does this still hold?

PRUDDEN: The same thing is true. The need for physical education—for physical release—is still there. But it's harder to satisfy. For instance in high school, if there are exams to be made up, they take it out of the physical education time. If there's a senior play, they take it out of the physical education time. Many schools have a six week physical education program and then there'll be six weeks of home economics and six weeks of art. You can't do anything very constructive with that kind of thinking.

"Games are the icing on the cake. They belong in the school

Q Can you give us an example of a school that has done a particularly good job of physical training?

PRUDDEN: The elementary school of Redding, Conn., taught by William Snyder, has done the job well (*see pictures, page 25*). He has taught his classes so well that no school will now compete with his girls' teams because they beat them by such terrible scores.

Q: What kind of a program does he run?

PRUDDEN: Just exactly what we're talking about. They take tumbling, gymnastics, basic exercise. Incidentally, one very interesting thing that I've learned through Bill Snyder is that when the school administrator felt that time should be cut down on some of their athletics, the parents, the mothers who were taking physical exercise—(you see he's a very smart fellow—he goes and gets the mothers and exercises them, then he knows they'll understand what he's trying to do with their youngsters)—they went to bat with the school board and got *more* time.

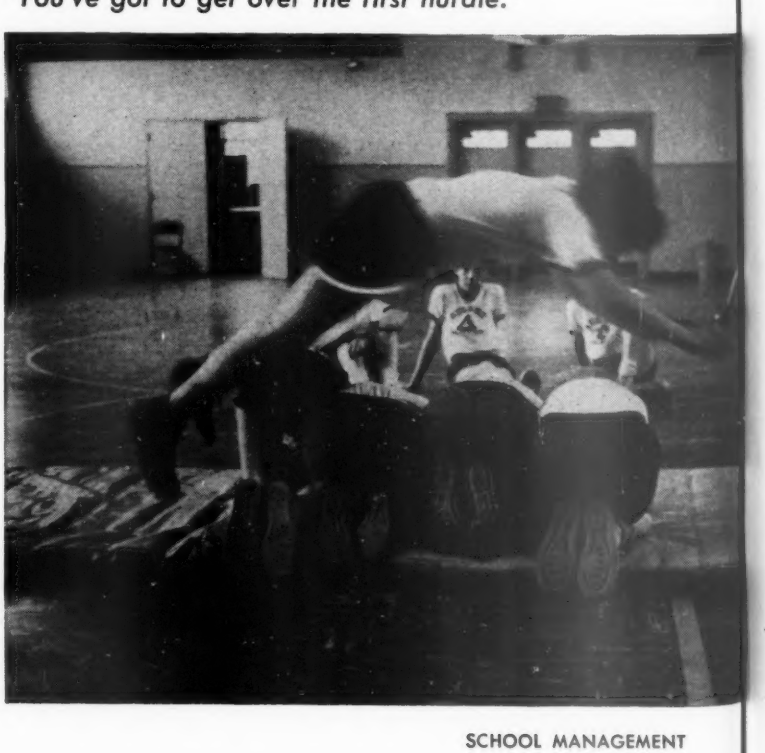
Q: In Snyder's program, have any tests been made to see the improvement in children under his direction?

PRUDDEN: Yes, they have been testing three times a year for the past three years. They have one of the lowest failure rates in Kraus-Weber in the country. And at the same time they are building good athletic teams.

Q: Have you observed any particular grade level where the Kraus-Weber tests show up the worst?

PRUDDEN: Junior high school is a problem level. In Kraus-Weber testing we found that the most failures came at 10, 11 and 12-year levels. At this time children need more physical education than at any other time to release the tensions that are accumulating. And, at this time, it seems they get less. Those who did run around outdoors seem to be influenced by their less active companions, and they start sitting down. They have a little more studying to do and they begin to notice the opposite sex. Then begins the telephone calling! You know this interesting thing called "going steady on the phone." I'm very glad it didn't happen in my age because I like

"You've got to get over the first hurdle."



th schools only after the body has been built."

"It doesn't come easy. You've got to get down and work."

"Open the windows and breathe noisily in."

boys and not telephones. These kids will get on the telephone and sit there and talk to each other for an hour and a half. When I was a kid, my boyfriend had to ride three miles and a half on his bicycle to get to visit. He, at least, got some exercise.

Q: How much time is really needed to do a good physical education job? Let's take a case. A gym instructor has perhaps 50 minutes with his students—a 50 minute period between bells. If he's lucky, he has only 30 students coming in during that period. More often he's got 60. How can he handle this many children so that they get some profitable exercise during this period?

PRUDDEN: Before I go into that may I make just one point? There is no parent or teacher on the face of the earth who would consider one instructor enough for mathematics, if there were 60 youngsters in a class. Yet, as you point out, they seem to think that a physical educator can handle 60 kids.

Q *How many pupils should one teacher handle?*

PRUDDEN: There should be at least one teacher per 30 kids. Even that's not too good. Look at it this way: let's say he has 30 pupils. If he has 50 minutes to start with, you've got to figure dressing and undressing and going upstairs and downstairs. Let's say he has 30 minutes left for

"Sitting in front of TV you lose flexibility."

30 kids. Now, what could he do with this? He could have three minutes of warm-ups with exercises to music, (and the music is rather essential because it makes everybody work at lot harder). Five or 10 minutes of exercise on the floor, standing up, going across the room. Now he's used up less than 15 minutes and he's got at least 15 minutes left. If he has apparatus that does not require too much spotting, equipment that can be used without a teacher watching, things like saw horses, and balance beams and ropes to climb, the children can use those. But if he has only one piece of equipment and children have to be watched by the one instructor, and one child at a time gets a chance and 29 watch, this is poor.

Q What about running and calisthenics? These take no equipment.

PRUDDEN: That's right. If the kids do nothing but run around the gym for 15 minutes, they'll get plenty of exercise. They'll be gasping. They'll be perspiring. The way we work it, we'll put a record on and have them run as fast as they can to that record. Then blow a whistle, and have them run in the opposite direction. Sometimes we put a lot of equipment in the way so that they have to go over it and under it and around it.

Q: Any other suggestions along these lines?

PRUDDEN: You can also use rope climbing—that doesn't take any spotting, or at least one boy can spot another. Balance exercises, like the saw horses, take very little in the way of spotting. There are any number of things that can be done that do not require an instructor with his hand on the youngster's neck. If you start easy tumbling as soon as the children have all learned to do a somersault, you can have a kid do up to 30 somersaults without your watching him.

Q: These are not competitive games at all.

PRUDDEN: No, they are not competitive, but they can be if proper testing is employed. I don't care what tests are used but something should be done to measure improvement—so that the youngster can see improvement. As far as the girls are concerned, they are most concerned about their figures and, therefore, you can measure them and weigh them and when their waistlines get smaller and their hiplines get smaller, you have an incentive. Boys are interested in their performance. So chinning and pushups, and jumps for height, and running for speed and distance, should be tested. These tests can be used for both girls and boys. These particular forms of tests are very good. I'm not much concerned with the tests of skills such as baseball throw, because they do not really indicate a total test. Somebody very strong could throw a very short distance.

Q: You're suggesting self-competition?

PRUDDEN: Yes—but it's more than that. In one of the schools I know, the instructor has a whole list of things that children should be able to do—forward rolls, backward rolls, shoulder rolls, headstands, handstands, cartwheels, rope climbing, etc. He keeps a list on the wall and, as a kid gets to the point where he can do each test, it's marked off against his name. This is incentive for youngsters.

Q Mrs. Prudden, what are the qualifications of a good physical education instructor?

PRUDDEN: Well, a good teacher or a good instructor usually is able to do himself what he is teaching. One of the great problems we've had for a number of years lies in the fact that teachers have been trained in kinetics, physiology, biology, anatomy, psychology, and a great deal of theory, but very little time has been given to performance. They're not trained in it.

Q: These are graduates of schools of physical education?

PRUDDEN: I have found in my work with young physical education people, and I'm on the staff of a couple of schools, that they have been cheated in their education. I have interviewed hundreds of physical educators who want jobs with me. I always ask one question: "Can you stand on your head?" That seems like a rather irrelevant question, but if I'm going to hire a teacher to teach my youngsters to stand on their heads, the teacher must be able to do it. I want to see a teacher who can climb a rope because then I know the children will go up the rope.

Q: Would this be a good criterion for a school superintendent or a school board in trying to hire a physical education teacher?

PRUDDEN: I'd certainly make it a part of my investigation before I hired anybody to teach physical education. Just how physical are they? And what do they look like? If they are slope-shouldered and paunchy, I wouldn't hire them because children would never believe in them.

Q What about varsity sports—or intramural teams. How do the coaches in these activities fit into a good program?

PRUDDEN: These teams only belong in our lives after school. The coaches of these teams are only of value after the body has been built. This is really the great gap that we have. Only at 14 or 15 do the coaches come in the field at all.

Q: Where do you get these physical education teachers that you're talking about? Are they available?

PRUDDEN: There are some around. But the teacher training in the last 10 or 15 years has been, I think, sadly lacking. The young men and women coming out now are full of theory, and know very little about the real job. But they are coming

every 30 kids."

out. I've seen graduates from Springfield and George Williams College and from Panzer—these people seem to have the idea. I know there are many more—I just haven't met those people.

Q: Must your physical education teacher be a man?

PRUDDEN: Definitely not. I think I would rather see boys in the elementary schools exposed to men teachers, because they are exposed to women too much. But the woman physical education teacher can teach the type of thing that I am talking about just as well as the man. I never had any difficulty teaching these boys—soldiers, sailors, teachers, old people, young people. If you know how to do your job, and if you know the subject well, and if you are at least as good as, if not better than, most of your students, you have no problem.

Q Let me try to sum up some of this. It seems to me that one conclusion we could come to would be that a school could completely revamp its physical education program and improve it at almost no cost and perhaps with its present staff. Is that true?

PRUDDEN: That's absolutely true. But they must change their values. Too many people evaluate their athletic programs by how many spectators they have on Saturday at the football game. They also put on paper a tremendous program. I have read the one for this town. They have baseball, football, soccer, gymnastics. They have badminton, they have volleyball, dodgeball—they have everything. But then, when you get the children and sit them down and say "How much time do you spend on athletics?", it is not very much. I think a school board or an administrator could profitably put a stopwatch to their physical education program. That's one way to see if it's real—or only on paper. **End**

How much equipment is needed?

Q How important is equipment? Can a good physical education teacher train a child, or a class, without all sorts of paraphernalia?

PRUDDEN: A good physical education teacher needs only to have a little space. The more space, the better. And equipment helps, of course. But he can do a darn good job with nothing being done.

Q. What can be done in a primary school lacking equipment?

PRUDDEN: Let's take a one room school I know of in Pennsylvania. It's the minimum situation. They have fixed desks and no hallway to work in. They put in a fitness exercise program. They gave the children about 20 minutes a day of exercise between the desks. They sat on the desks to do sit-ups, leaning over while someone else held their knees down. They did duck walks up and down the aisles. They did floor touches. You can do 20 minutes of excercise daily, between desks, without any trouble.

Another example—the Whitcomb School in Bethel, Vt. had a corridor. In that school they had a failure rate on the Kraus-Weber test of 46% before the program started. The Latin teacher and the math teacher, one over 50 and the other 34 years old, who knew nothing about physical education, took basic exercises and conducted a class 20 minutes a day for six weeks. They brought the failure rate to 6%.

Q. What kind of exercises did these children do?

PRUDDEN: They did floor touch exercises for flexibility. They did push ups. They did sit-ups. They did running in place. They did shoulder exercises where they stood with their feet apart and their knees straight and then "walked" forward until their bodies were completely extended on their hands. From that position you push back into a standing position. It doesn't take much room, but it certainly develops shoulders.

Q. How much space is really needed?

PRUDDEN: There are any number of exercises that can be done in a space of four-square-feet per child. Or, if worst comes to worst, three-square-feet. Equipment helps, but it certainly isn't needed.

Parents think

continued from page 34

and to find out just what the parents were thinking in relation to a variety of school problems.

The organization

The original suggestion for the forums came from Helene Vosloh, a school board member who had received a number of phone calls from parents either asking questions about the schools or simply commenting upon some school activity. Mrs. Vosloh felt, and other board members agreed, that public meetings would enable *all* interested parents to meet with school officials for valuable give-and-take sessions. The meetings would, the board felt, give parents a chance to express themselves openly—to get things off their chests. On the other hand, they would also provide a golden opportunity for the board to evaluate the reactions and attitudes of the parents toward the schools.

The meetings were held in the auditoriums of junior and senior high schools at widely separated points, to encourage local-level attendance. The public was notified of these meetings by straight news stories in the Miami Herald and the Miami News, and by supplementary stories in smaller local community papers.

Faculty members of the host-school were present at the meetings, as was the Superintendent of Schools. C. Raymond Van Dusen, chairman of the school board, served as discussion leader at each of the seven forums.

A few informal rules were announced at the beginning of each meeting:

1. Questions could be asked either orally from the floor, or could be submitted on cards provided for the purpose.

2. It was suggested that the school officials were most interested in hearing from people living in the immediate area. This brief statement effectively stopped any "traveling hecklers" who wanted to dominate all seven meetings.

3. Parents were requested to keep their questions and comments brief, and to direct them to the chair. This prevented the possibility of a free-for-all debate on the floor.

4. Finally, it was made clear that the meetings had been called to offer parents an opportunity to ask questions about and express their opinions of the schools, and were not intended as a criticism of any group in the system.

The questions

A total of 293 written questions was submitted during the seven meetings, in addition to about twice that number which were asked from the floor. Of the 293 questions, only 143 were considered "unfavorable." A breakdown was made of these questions.

As was expected, the largest single group of questions concerned itself with curriculum. Some 60 parents criticized academic requirements, religious instruction, the teaching of reading, so-called "life adjustment" courses, ability grouping and the physical education program.

Next in line for criticism were the grading and promotion procedures. Parents objected strongly to the E-S-U grading system, demanded, and, as a result, got the "old-fashioned" ABC system: A (100-93), B (92-89), C (88-76), D (75-70) and F (69 and below).

Regarding promotion practices, the parents took the position that children should *not* be promoted if they were not ready for the work of the higher grade. Many educators seem to feel that parents want their children advanced regardless of ability; they believe that parents consider it a personal affront to themselves if their child is "left back," and a social stigma for the child. However, this is simply not true—or at least it's not true in Dade County. Out of this aspect of the public forums came a really stiff promotion standard: "promotions shall be made for academic achievement at all grade levels . . ." Furthermore school officials warned that "failure through lack of effort is inexcusable and will not be tolerated." "Students who do not cooperate," said the officials, "may be withdrawn from school."

Other questions reflected parental concern with school discipline, buildings and equipment, emphasis on football, cafeteria and bus service, textbooks and teaching.

It should be understood that in Dade County it is not necessary to drum up interest in the schools. The citizens are alert to their responsibilities, both vocal and financial. For example, a recent $34,500,000 bond issue was passed by a 12 to 1 majority.

But the public forums provided a new method of communicating with the parents. School Board Chairman Van Dusen feels that face-to-face mass meetings are far superior to individual, limited contacts between parents and educators. "There are many people," says Van Dusen, "who would claim that this is not an accurate sounding board. Perhaps they are right, but we have a great respect for the Town Hall in America, and believe that thoughts expressed before assembled groups somehow reflect deeper meanings."

Closing the gap

Were the public forums in Dade County and the questionnaires in Wellesley worth while? Both groups of school officials feel that they were. In each district parents were concerned, as they should be, with local problems. But two factors are similar in both states: the concern and interest in the schools exhibited by the parents, and the "get tough" policies the parents suggested to the educators. A recent Gallup poll suggests that educators would like to stiffen the curriculum and reduce emphasis on fringe courses, but they are "afraid" that parents would object. If this is true, then parents and educators have been, in effect, working at cross purposes. Two-way communication is the only way to find out exactly what the party of the second part is really thinking. Without effective communication, children bear the burden of changing educational emphasis as parents and teachers vainly try to guess the others intent; with it, the partnership of school and home can operate for the benefit of the children. **End**

How strongly do teachers feel about EXTRA SUPERVISORY DUTIES?

Do they really dislike them as they say, or are their complaints just a way of letting off steam? Here's what one school superintendent discovered.

■ ■ ■ There's been a lot of talk—most of it just guesswork—about how teachers feel about nonteaching supervisory tasks. That they take up an inordinate and wasteful amount of time and money is undeniable. (*See SM, July, 1958, on teachers aides.*) But what do the teachers themselves have to say on the subject? Do they really object as much as the "experts" think they do? If so, what duties do they object to most strongly? What tasks bother them least? And, finally, is there any practicable method by which they could be relieved of these duties?

How much is too much?

In 1957, in Middlebury, Conn., Superintendent of Schools Malcolm A. Letts became concerned over teacher dissatisfaction with supervisory duties. Wondering whether the practices in his school district were out of line, Letts sent a questionnaire to 30 school superintendents in communities similar to Middlebury. All 30 superintendents returned their questionnaires. Letts found the results provocative, so far as teacher supervision was concerned:

- All **30** towns had playground supervision during the noon hour.
- **27** towns had playground supervision before school.
- **29** towns had supervised recess periods.
- **10** towns had teachers supervising the playgrounds after school.
- **29** towns had teacher supervision in the lunchroom.
- **27** towns had teachers supervising bus loading.

Inasmuch as teachers in the Middlebury public schools had no playground duty, before or after regular school hours, they spent considerably less time in supervisory chores than did teachers in similar school districts. Because of this, Letts felt that there were other factors contributing to the complaints. Not until the spring of 1958 did he have an opportunity to dig deeper into the problem. What he and his colleagues discovered throws new light on an old problem.

The survey

At the University of Connecticut, Letts enrolled in a graduate course on personnel problems, under Dr. C. E. Weber, professor of education. As part of the course work, Dr. Weber divided the class into committees. Each was to select a suitable topic, do original research and present a report. As chairman of his committee, Letts urged his seven colleagues to look into the problem of teachers' supervisory duties. That little material was available on the subject came as no surprise to Letts. Using his superintendent survey and his personal experience with the problem as a starting point, Letts' committee compiled a questionnaire. Simple and to the point, eight leading questions were framed (*see box, page 60*) and the questionnaires were distributed to 203 teachers.

Of these, 154 were returned and, while Letts admits that this sam-

THE QUESTIONS TEACHERS ANSWERED

The questions were designed to uncover the real feelings of teachers in three areas pertaining to supervisory duties.

First: did they object to the whole idea or were their objections directed to one or two specific supervisory tasks? If they did object to performing *any* such duties, was this based on a belief that their efficiency as teachers was lessened?

Second: did they receive extra money for extra duty, or, if not, would extra compensation mean the difference between complaining and not complaining?

Third: if the objection to supervisory duties was deep-rooted and not affected by the size of the paycheck, just what alternatives did the teachers suggest?

1. *Do extra supervisory duties bring extra remuneration in your schools?*
2. *Do you feel that extra duties should bring extra compensation?*
3. *Do you, as a teacher, object to supervision of pupils other than during a classroom situation?*
4. *What are the alternatives to extra supervision of pupils by teachers?*
5. *If extra remuneration is to be offered for such supervision, what should be included and what excluded?*
6. *What do you consider to be the most objectionable extra-supervisory duty?*
7. *What do you consider the least objectionable?*
8. *Do you feel these extra supervisory duties, with or without pay, decrease your efficiency as a teacher?*

pling is far from conclusive, it is still possible to draw certain interesting inferences from the responses.

The answers

Question number one was **"Do extra supervisory duties bring extra remuneration in your school?"**

To this "yes" or "no" query, 79 teachers answered that there was no remuneration, and 29 said there was. Where extra pay was given it was usually for coaching. It was interesting to note that some administrators obviously did not want the entire staff to know that some teachers were receiving extra pay. Teachers from the same school building answered this question "yes" and "no."

Question number two was **"Do you feel that extra duties should bring extra compensation?"**

Sixty-nine teachers answered "yes," and 25 answered "no." The tone of the responses reflected a variety of attitudes towards the teaching profession. For example: "No. I believe that teachers should be paid a professional salary, and be expected to put in time as needed to do a professional job. This could very well entail numerous 60-hour work weeks. This is expected of professions and ours has no business looking for a 40-hour work week." On the other hand one teacher wrote: "Yes. Teachers work far longer per week than most people realize. Why should they, without suitable compensation?"

Question number three was **"Do you, as a teacher, object to supervision of pupils other than during a classroom situation?"**

Seventy of the teachers answered that they did *not* object, while 34 said they *did* object. Here, too, the responses ranged from "hire a policeman for police duty!" to "No. I prefer it as it permits better understanding of the children." One enlightening aspect of the responses to this question was that all 34 persons who objected were high school teachers. The elementary school teachers apparently felt that supervisory duties were part of their jobs. Interestingly, both elementary and high school teachers indicated that any objections they did have would be lessened considerably if the supervisory load were evenly distributed among the entire staff.

Question number four was **"What are the alternatives to extra supervision of pupils by teachers?"**

All the answers fell into three distinct categories: **1.** *curtailing activities,* **2.** *special people to handle supervisory duties,* and **3.** *supervision by the students themselves.*

Teachers who mentioned curtailing activities argued that school programs are overloaded with "frills." These frills, they felt, are included primarily to gain public support, provide publicity for the schools, and make it easier to float bond issues and attract new teachers. The camera clubs, and other special-interest, non-academic organizations, said the teachers, do not materially contribute to education, but do consume a great deal of a teacher's time. Harking back to "the good old days," they maintained that extra-curricular activities once encompassed a school newspaper, perhaps a literary magazine, a group of athletic teams and a school band. If a student was a member of more than one or two of these, he was probably warned not to get too deeply involved in non-academic activities. "The real scholar," said one teacher, "spent almost as much time studying as the college student of today."

Most of the teachers who maintained that the answer to the problem lay in hiring special people for supervisory duties, realized that this method would create its own problems. Would students respect the authority of a non-teacher? Would parents go along with the separation of strictly teaching tasks and supervisory duties? In some states new laws would have to be enacted to permit non-certified personnel to act in a supervisory capacity. And, finally, where would the money come from to pay these extra salaries? In this area, many of the teachers who originally argued for the special supervisory people, or "general aides," reversed their field, and said that this extra money could more sensibly be distributed among the faculty. Again, in the answers to this question, teachers campaigned for a more equitably distributed supervisory work load.

The third and final category, student supervision, was perhaps the most fruitful area. Teachers felt that this method would have a double-barreled benefit: it would relieve the teacher and, at the same time,

grant needed responsibility to the students. While this technique would obviously operate more effectively at the high school level, it was felt that even a sixth grade elementary class could institute a monitor system to supervise a lunchroom and allow the teachers to eat in comparative peace. A good student council organization, it was felt, could make a substantial contribution by assuming the responsibility for certain supervisory duties.

Question number five asked, **"If extra remuneration is to be offered for such supervision, what should be included and what excluded?"**

The answers to this question were many and varied. Again they reflected divergent attitudes towards teaching itself. "I do not think that remuneration should be expected if teaching is ever to be accepted as a profession." "Anything that prevents the teacher from being with his family after the regular working day is over."

One teacher replied that only those duties that call for "extraordinary skills, abilities or training" should require extra compensation. Others answering the question felt that the line should be drawn between voluntary and involuntary duty. Still others restated the "equitable load" idea by maintaining that duties shared by the entire staff should not receive added compensation, while those that are not common to all teachers should carry extra pay.

Question number six asked, **"What do you consider to be the most objectionable extra-supervisory duty?"**

Question number seven was, **"What do you consider the least objectionable?"**

Tabulation of answers to these two questions indicated that lunchroom, playground and bus duty stood high on the "objectionable" list, while supervision during recess and detention periods was considered less objectionable. However, there was no real agreement on these points. One teacher summed it up this way: "This is relative. It's the same as asking which is the most objectionable, a person who steals $5,000 or a person who steals $50,000. They both are bad."

Question number eight asked **"Do you feel these extra supervisory duties, with or without pay, decrease your efficiency as a teacher?"**

Sixty-seven teachers said they believed it did, while 33 said it did not. Those who felt it did decrease their efficiency as a teacher said the time could be more profitably spent working with individual students or evaluating the classroom program. On the other hand, those who replied "no" to the question maintained that extra curricular supervision provides invaluable associations with the pupils which pay dividends later, in the classroom.

What it means

In summarizing the results of the survey, Letts made these observations:

1. It would seem that the whole question of extra supervisory duties is not as pressing *to teachers* as we were led to believe. Only 75.86% of we teachers surveyed even bothered to return the questionnaires, while many who did answered only a few of the questions. Obviously, if teachers really felt as strongly about supervisory duties as they claimed they did, almost all would have jumped at the chance to express an opinion.

2. There is obviously a desperate need for the teaching profession—particularly administrators—to sit down and evaluate what really constitutes the job of a teacher. Some teachers believe it is—or should be—limited strictly to the classroom. Others include the school proper, while some feel that every contact with the pupil is a valuable educational experience for both parties. Once the job of teacher is defined and accepted by the profession as a whole, some of these difficulties will resolve themselves.

In a subsidiary report on the same subject, Joseph Cone, one of the members of Letts' committee, made these statements:

"Teachers are always complaining about the amount of paperwork they have to do, but the doctor, the milkman, the bus driver and many others have paperwork to do also."

With this statement, Lett's survey indicates, most teachers would agree. The heart of the problem lies in *how much* supervisory activity a teacher can *reasonably* handle without diluting her main job. **End**

PRESS RELEASES

News from the business firms serving your schools

Portable incinerator burns eight hours

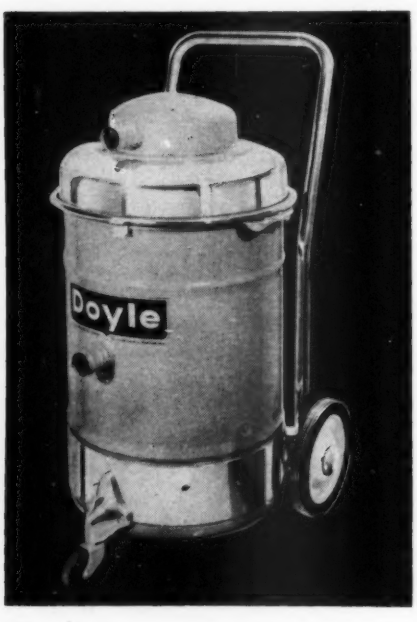
The Disposall manufactured by Joseph Goder Incinerators, is designed to burn four to six drums of waste per day. This is the first large-size portable unit capable of continuous eight hour a day burning the maker says. The waist-high, inclined front door opens by foot pedal for easy use when handling waste drums. A drawer-type ash pan facilitates removal of ashes. A second ash pan has been engineered into the secondary combustion chamber to catch all fly ash. Accessory equipment includes a low blast gas burner with automatic flame control, timer and induced draft fan.

For more information on this product, circle number 940 on the Reader Service Card.

■ ■ ■

Doyle offers eight gallon vacuum cleaner

An industrial vacuum cleaner, Model 15-D, with an eight-gallon recovery capacity is being marketed by the Doyle Vacuum Cleaner Co. This vacuum can be used for wet or dry operation or can be converted to a blower. The machine, mounted on two eight-inch wheels with a full-swivel caster on the dolly, is powered by a single phase ¾ HP AC-DC motor. Electrical features include: protected toggle switch, cord strain relief, 25 feet two-wire cord with non-breakable plug, and radio interference condenser. The machine also has a 40 square inch filtering area, a volume of 100 cubic feet per minute and a velocity of from 100 to 180 mph air speed at the nozzle.

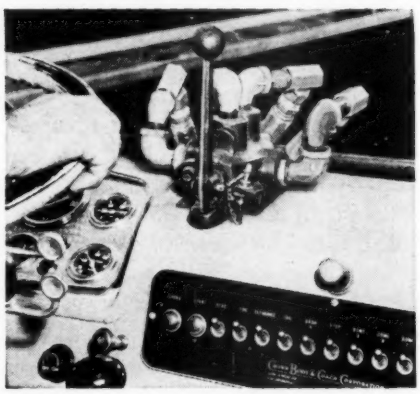


For more information about this product, circle number 936 on the Reader Service Card.

■ ■ ■

New separate braking system means safer school buses

For the first time, after failure of regular brake hydraulic systems, buses can make repeated, fully-controlled emergency stops, according to an announcement by the manufacturer of a new, independent, electric-hydraulic sytsem. Known as the "American Safety Brake," the units give the driver instant control when normal airlines rupture, or pump or fluid fails. It may be installed on buses to function entirely apart from the vehicle's regular air or vacuum equipment. The control unit mounts on the dash of the bus *(see cut)* and is actuated by a lever.

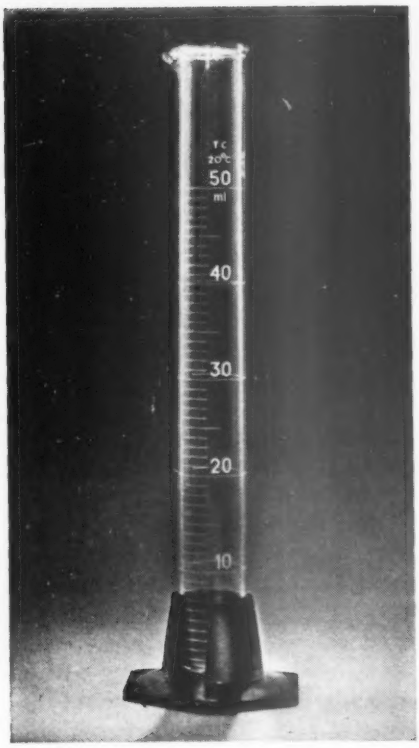


For more information about this product, circle number 944 on the Reader Service Card.

■ ■ ■

Glass lab cylinder cuts breakage

A heat-resistant, graduated glass cylinder with removable base has been introduced by the Corning Glass Works. The Pyrex brand cylinder is designed for student use in school laboratories. A replacement cylinder body can be easily fitted into the plastic hexagonal base. The base prevents the cylinder from rolling. The cylinder is made of borosilicate glass and is mechanically strong and chemically resistant. The cylinders are available in three sizes for capacities of 25, 50 or 100 ml.



For more information about this product, circle number 949 on the Reader Service Card.

■ ■ ■

Vision tester provides performance record

The School Vision Tester, manufactured by Bausch & Lomb Optical Co., is a precision instrument designed to incorporate basic requirements of good testing along the lines of a program developed at Purdue University and the University of Chicago. A complete battery of vision tests can be administered in less than two minutes. These include acuity tests, tests for hyperopia, phoria tests for muscle balance and checkerboard acuity tests. Test distances of 20 feet and 13 inches are produced optically and are precise and constant regardless of where the instrument is used. The instrument weighs 19 pounds and measures 20″ x 10″ x 18″. Test can also be given to children who have not yet learned the alphabet.

For more information about this product, circle number 937 on the Reader Service Card.

Sewage treatment plant for outlying schools

The new Suburbia sewage plant, manufactured by Municipal Service Company, has been designed as a low cost answer to modern sewage treatment in areas which do not yet have metropolitan service. It can be used by an outlying school until main sewers have been installed and hooked up to laterals. The plant can then be moved to another peripheral area and put back into service. It can be furnished in sizes to serve from to 200 to 5,000 persons, and the cost is said to be up to 50% less than for plants presently suited to small population problems. Each plant is designed to meet individual specifications set by consulting engineers and state sanitary officials.

For more information on this product, circle number 946 on the Reader Service Card.

■ ■ ■

Two study desks offered by Samsonite

Two combination chair and desk units have been introduced by Shwayder Bros., Inc. These units are made of tubular steel and are quickly moved about for easier room maintenance or classroom use. The desk has a pivoted reinforced plastic back, five-ply birch or maple seat and a plastic laminate top. Samsonite textured grey or brown vinyl covered steel seats and backs are optional in 16 and 17-inch chair heights. Desk top heights are scaled to seat heights. Desks come with lift-lid book boxes, or with book rack under the chair seat. Available in four colors.

For more information about this product, circle number 939 on the Reader Service Card.

■ ■ ■

Economy folding chair has foam cushion

A low-cost folding chair with a foam cushion has been introduced by the BeLa division of J&J Tool & Machine Co. The chair, model 2104, has a foam cushion seat and padded upholstered back rest. It is available in seven enameled frame colors and a variety of upholstery patterns. Chrome or gold bronze plated frames are also available. When folded the chair is 2¼" thick.

For more information about this product, circle number 948 on the Reader Service Card.

■ ■ ■

New snow-thrower for less than $100

A new snow-clearing machine which can handle up to 300 shovelfuls of snow per minute, cutting a 16-inch path through foot-deep snow, is now

in production at $98.50. A special raker bar, mounted on a rotary fan, cuts up packed or crusted snow, and prevents clogging or stalling in even the stickiest snow. Thrown snow is spread over a 20 foot strip to prevent big banks, and an adjustable deflector permits changing the throwing angle when desired.

For more information on this product, circle number 942 on the Reader Service Card.

■ ■ ■

Wire basket rack for low cost gym storage

A new wire basket and rack system has recently been announced for use in school gymnasiums and swimming pools. The manufacturers say that they offer the advantages of ventila-

Literature Available FROM MANUFACTURERS

Electric heating. An eight-page brochure, "The ABZ of Electric Heat Today," published by Electromode, a division of Commercial Controls, explains and illustrates a boiler-less method that, the company claims, will considerably reduce construction costs.

For a free copy of this brochure, circle number 932 on the Reader Service Card.

Folding chairs. An illustrated catalog showing various styles of steel folding chairs offered by the Cole Equipment Co., complete with prices, has just been published. The chairs, designed for use in libraries, auditoriums and cafeterias, are mostly in the lower price ranges.

For free copy of this catalog, circle number 931 on the Reader Service Card.

Heating and ventilation. A 56-page catalog, published by the Trane Co., gives complete engineering information, plans and specifications for many types of installations.

For a free copy of this catalog, circle number 950 on the Reader Service Card.

Room darkening. A four-page folder produced by the Duracote Corp. describes an unusual new Fiberglas fabric which can be used in classrooms for eliminating daylight during audio-visual presentations. Samples of the material are shown in the brochure.

For a copy of this folder, please circle number 933 on the Reader Service Card.

School construction. A 12-page booklet, "A New Solution to the Problem of School Construction Versus the Budget," published by the Butler Mfg. Co., describes how many communities solved the building problem with low-cost Butler buildings.

For a free copy of this booklet, circle number 951 on the Reader Service Card.

Television camera. A four-page folder describes the new General Electric closed circuit television camera and its accessories. Complete specifications are provided.

For a free copy of this folder, circle number 934 on the Reader Service Card.

tion, easy visual inspection and ability to be securely locked.

The racks are available in a variety of heights for mounting against walls or as double-face units where space facilities permit access to both sides of the rack. Depth of a single unit is 13-½".

Two sizes of baskets are available—9" or 12" wide. Openings in a wire mesh construction measure approximately 1" square. Number plates are riveted firmly to each basket, corresponding to the number plate on the rack. A wire loop in the top frame of each basket corresponds to a clasp on the rack for padlocking.

For more information on this product, circle number 947 on the Reader Service Card.

■ ■ ■

Classroom storage trays high-impact plastic

Colorful high-impact plastic is featured in this new line of Fabri-Form storage trays. The plastic is unbreakable in normal use, and is easily cleaned with mild soap and water. Each tray has a handy card holder on front for student identification. The trays are available in a wide range of sizes which will fit any standard rack system. Standard colors offered are pale gray, tan and green.

For more information on this product, circle number 941 on the Reader Service Card.

■ ■ ■

Visual Instruction technique introduced

A "Clear-A-Slide Kit," offered by the Charles Beseler Co., enables teachers, lecturers and instructors to make color transparencies and project them immediately before a group. The kit is available in four sizes from 3¼" x 4" to 10" x 10". It is possible to prepare these transparencies by using pencils. Specially treated vinyl slides are used. The writing is made permanent, fade-proof and smudge-proof by spraying the slides with a special spray. The spray dries in a moment and the slide is ready for projection.

For more information about this product, circle number 938 on the Reader Service Card.

■ ■ ■

New high speed unit for school photocopying

The new Remington Rand Transcopy Meteor will photocopy originals up to 15" wide, and of any length, in one half a minute or less. Designed specially for use under fluorescent

or bright school lighting, it can be plugged into standard electrical outlets and no installation is necessary. Extremely compact, the overall dimensions are: length 26-½", width 15-½", height 9-¼", and throat width 15".

For more information on this product, circle number 943 on the Reader Service Card.

■ ■ ■

Utility cabinet offers 85′ of storage

Eighty-five cubic feet of refrigerated food storage space is available in this new cabinet built to be shipped in sections for assembly by users. Intended for storage of such bulky items as egg crates, case beverages, and other packaged goods, the cooler is 6′ high. Interior dimensions are 62-½" by 48". Slated hardwood shelves are available as optional equipment.

For more information on this product, circle number 945 on the Reader Service Card.

S/M

This Reader Service Section is provided to help you obtain additional information on advertisements in this issue. Simply find the appropriate key numbers in the listing and circle the corresponding numbers on one of the cards bound in behind this page.

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Selection Manual No. 60 will be sent to you promptly on request.

Anemostat Corporation of America pioneered the development of All-Air High Velocity Systems. Anemostat leadership in high velocity systems has resulted in more than 500 fine installations using more than 60,000 units in office buildings, schools, hospitals, auditoriums, etc. throughout the United States, Canada and Mexico.

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(Circle number 706 for more information)

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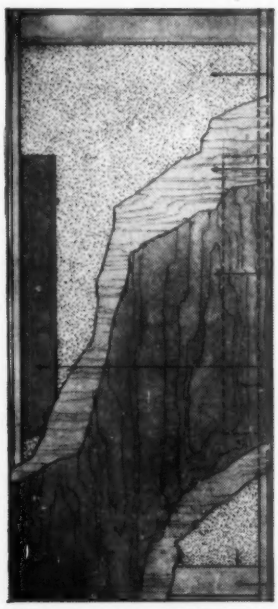
A complete selection guide to beautiful, durable Weldwood Doors



Weldwood Mineral Core Door Construction

FLUSH DOORS

Weldwood "Stay-Strate"® Mineral Core Doors—*End complaints and service problems.* An interior-exterior door that combines the natural beauty of choice face veneers in standard thicknesses with Weldrok®, the incombustible mineral core. Assures maximum dimensional stability, heat insulation, vermin- and decay-resistance, and over 30 decibels sound reduction.

Recommended for exterior doorways and wherever frequent exposure of one side to high humidity presents severe warping conditions. Also recommended for children's and recreation rooms and multi-dwelling corridor doorways where high noise retardance is desirable.

In birch, Korina®, mahogany, oak, walnut and other hardwood faces. Standard sizes in 1¾" stock thickness; special sizes on order. Light or louver openings available.

Weldwood Wood-Faced Mineral Core Fire Doors—*Double protection from fire.* Incombustible Weldrok Core enables Weldwood Fire Doors to give positive protection against searing fire, destructive heat. In sizes up to 4/0 x 7/0 with or without vision panels. Tested and approved, and labeled by Underwriters' Laboratories, Inc., for Class "B" and Class "C" openings.

Recommended for single and multi-family residences, hospitals, hotels, schools, institutions, office buildings, theatres, museums—wherever fire protection *and* heat insulation are essential, and where the beauty of real wood-faced doors is desired.

GUARANTEE

Weldwood Stay-Strate and Weldwood Fire Doors are guaranteed unconditionally against warping, twisting, or manufacturing defects for the life of the installation, when installed in accordance with good carpentry practice. Any door found to be defective will be replaced without charge . . . *including all labor costs of hanging and refinishing.*

Weldwood Institutional Hollow Core Doors—*To withstand exceptionally heavy use.* The economy and lightness of hollow core construction, plus the reinforced construction that accommodates heavy-duty hardware. The rugged, husky frames take in stride the shock and stress of institutional use.

Recommended for hotels, hospitals, schools, libraries and other public buildings where doors must withstand severe opening actions. Standard construction may be varied to your specific requirements. Birch, oak, walnut, and other woods.

Weldwood Lumber-Core Flush Doors—*Top quality door at moderate price.* Staved lumber core of pine or equal species gives exceptional dimensional stability. Door is virtually warp-free and is guaranteed for life against delamination.

Recommended for interior or exterior use to match Algoma-grade plywood paneling. Available in mahogany, oak, Korina, and other faces; in all standard sizes and in special sizes up to 6/0 x 12/0 and in 1⅜", 1¾", 2", and 2¼" thicknesses.

Hollow Core Doors—*Leader in the low-price field.* Popular quality door in the lower price range. Proven in a wide variety of uses, for homes, office buildings, and institutions. Available in both interior and exterior. Select from birch, oak, gum, walnut, and African and Philippine mahogany—handsome woods that finish beautifully painted, stained, or natural. Standard sizes come in both 1⅜" and 1¾" thicknesses for interior uses and in 1¾" for exterior uses.

Weldwood Custom Royal Doors—*Colorful laminate-faced door.* Decorative Micarta® or other high-pressure laminate, is bonded to the face of any of the Weldwood flush doors for colorful, scuff-proof interior doors that require *no* maintenance, take heavy punishment. Need no kick- or push-plate. Doors are easily worked with ordinary tools.

Recommended for restaurants, hotels, schools. Come in a wide range of colors and designs, including Tru-Grain Micarta (that simulates wood grains). All standard sizes available with light or louver openings.

CLOSET DOORS

Weldwood Novoply® Wardrobe Sliding Door Units—*For warp-proof sliding doors.* Flattest, most stable door panel ever made, Novoply, a 3-ply engineered panel with face plies of resin-impregnated wood flakes bonded under heat and pressure to a specially prepared wood chip core, won't warp so doors can't stick or bind. Novoply Flush Doors finish beautifully—painted, stained, or natural. Come pre-cut, ready to install in a complete package unit with precision rolling hardware, select jambs, headers, and fascias. Sizes: 3′ x 6′ 9½" to 8′ x 8′. Thickness: ¾".

Bi-Fold Doors—*Provide full closet opening access.* Individually packaged complete units save space because they require no framing-in or headers. Can be installed in 30 minutes in any plain square cased opening. Made of flat, stable Novoply, Paniflex Bi-Fold Doors allow floor to ceiling closet doors, eliminate 2 x 4 studding. Available in a wide range of sizes.

SPECIAL-PURPOSE DOORS

Weldwood Louver Doors—Made of Ponderosa pine or fir are available in single doors or in pairs in standard sizes, 1⅜" or 1⅜" thick.

Weldwood Metal-Clad Doors—A wide choice for restaurants, hotels, and other buildings where unusually heavy physical abuse demands utmost durability.

Weldwood Sound-Insulating Doors—For professional sound reduction requirements, furnished in three thicknesses, each with its own laboratory-certified decibel rating.

Weldwood X-Ray Doors—Lead-lined doors that limit the passage of X-rays, for hospitals, clinics, medical, and dental offices.

WELDWOOD DOOR FINISHING

Evergrain—One of the finest wood finishes ever developed. Is factory applied over natural or stained veneers of your choice to bring out and fully protect the natural beauty of the wood. Also excellent protection for painted surfaces. Other custom finishing can be done to our rigid specifications or to others of your choice.

FREE BOOKLET. For detailed information, send for Weldwood's free new booklet: "Weldwood Doors, Interior and Exterior."

Weldwood® DOORS

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(Circle number 709 for more information)